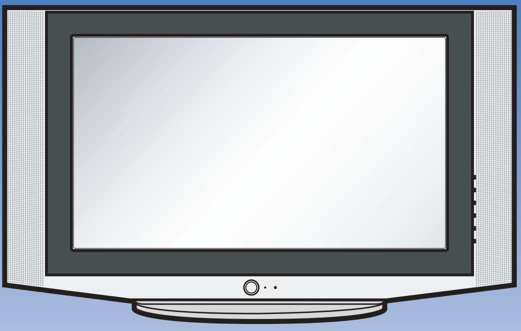
SAMSUNG

COLOR TELEVISION RECEIVER

Chassis : S62B(P)_SHINE
Model : WS32Z306VBXXEU

SERVICE Manual

COLOR TELEVISION RECEIVER



WS-32Z306V

FEATURES

- Slimfit(Low Depth) CRT
- SRS-WOW
- Simple 100Hz

Table of Contents

Chapter 1 Precaution

- 1-1 Safety Precautions 1-1
- 1-2 Servicing Precautions 1-3
- 1-3 Static Electricity Precautions 1-4
- 1-4 Installation Precautions 1-5

Chapter 2 Product Specification

- 2-1 Product Features 2-1
- 2-2 Key Features 2-2
- 2-3 Specifications Analysis 2-3
- 2-4 Accessories 2-4

Chapter 3 Alignment & Adjustment

- 3-1 Service Instruction 3-1
- 3-2 How to Access Service Mode 3-2
- 3-3 Factory Data 3-3
- 3-4 Service Adjustment 3-24
- 3-5 Replacements & Calibration 3-26

Chapter 4 Exploded View & Part List

- 4-1 WS32Z306VBXXEU 4-1

Chapter 5 Electrical Part List

- 5-1 WS32Z306VBXXEU 5-1

Chapter 6 Troubleshooting

- 6-1 Checkpoints by Error Mode 6-1
- 6-2 Trouble-shooting with New Features 6-4
- 6-3 Troubleshooting Procedures by Error Modes 6-7
- 6-4 Troubleshooting Procedures by ASS'Y 6-8
- 6-5 Troubleshooting by Blocks 6-12

Chapter 7 Block Diagram

- 7-1 Overall Block Diagram 7-1
- 7-2 Partial Block Diagram 7-3
- 7-3 Power current block diagram 7-5

Chapter 8 Wiring Diagram

- 8-1 Overall Wiring 8-1
- 8-2 Pin Connection 8-2

Chapter 9 PCB Diagram

- 9-1 Main Board 9-1
- 9-2 Feature Box Board 9-3
- 9-3 Deflection Board 9-5
- 9-4 CRT Board 9-7

Chapter 10 Schematic Diagram

- 10-1 MAIN 10-1
- 10-2 Feature Box 10-3
- 10-3 DEFLECTION 10-8
- 10-4 CRT 10-9
- 10-5 AV 10-10
- 10-6 CONTROL 10-11
- 10-7 LED Module 10-12
- 10-8 Master S/W 10-12

Chapter 11 Operation Instruction & Installation

- 11-1 Product Features and Functions 11-1

Chapter 12 Disassembly & Reassembly

- 12-1 Overhaul Disassembly & Reassembly 12-1

Chapter 13 Circuit Description

- 13-1 Overall Block Description 13-1
- 13-2 Partial Block Description 13-3
- 13-3 IC Line up 13-8

Chapter 14 Reference Information

- 14-1 Other issues related to other products 14-1
- 14-2 Technical Terms 14-2

1. Precaution

To avoid possible damages or electric shocks or exposure to radiation, follow the instructions below with regard to safety, installation, service and ESD..

1-1 Safety Precautions

1. Make sure all protective devices are properly installed including non-metallic handles and compartment covers when installing or re-installing the chassis or chassis assemblies.

2. Make sure that no gaps exist between the cabinets for children to insert their fingers in to prevent children from receiving electric shocks. Gaps mentioned above include ventilation holes of a too great magnitude between the vaccum tube and the cabinet mask, and the improper installation of the rear cabinet.

   Errors may occur when the resistance is below 1.0 ㏁ or over 5.2 ㏁.
   In these cases, make sure that the device is repaired before sending it back to the customer.

3. Check for Electricity Leakage (Figure 1-1)
   Warning: Do not use an insulated transistor for checking the leakage. Use only those current leakage testers or mirroring systems that comply with ANSIC 101.1 and the Underwriter Laboratory's specifications (UL1410, 59.7).

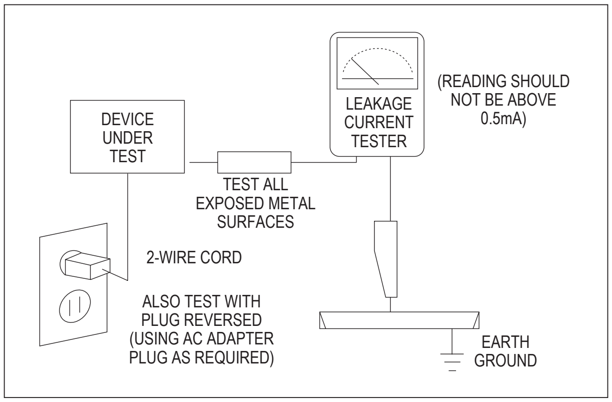

DEVICE UNDER TEST
LEAKAGE CURRENT TESTER
(READING SHOULD NOT BE ABOVE 0.5mA)
TEST ALL EXPOSED METAL SURFACES
2-WIRE CORD
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

Fig. 1-1 AC Leakage Test

4. A high voltage is maintained within the specified limits using safety parts, calibration and tolerances. When voltage exceeds the specified limits, check each special part.

5. Warning for Engineering Changes:
   Never make any changes or additions to the circuit design or the internal part for this product.
   Ex: Do not add any audio or video accessory connectors. This might cause physical damage.
   Furthermore, any changes or additions to the original design/engineering will invalidate the warranty.

6. Warning - Hot Chassis:
   Some TV chassis are directly connected to one end of the AC power cord for electrical reasons.
   Without insulated transistors, the product can only be repaired safely when the chassis is connected to the earthed end of the AC power source.

   To make sure the AC power cord is properly connected, follow the instructions below. Use the voltmeter to measure the voltage between the chassis and the earthed ground. If the measurement is over 1.0V, unplug the AC power cord and change the polarity before re-inserting it. Measure the voltage between the chassis and the ground again.

7. Some TV chassis are shipped with an additional secondary grounding system. The secondary system is adjacent to the AC power line. These two grounding systems are separated in the circuit using an unbreakable/unchangeable insulation material.

8. When any parts, material or wiring appear overheated or damaged, replace them with new regular ones immediately. When any damage or overheating is detected, correct this immediately and make a regular check of possible errors.

9. Check for the original shape of the lead, especially that of the antenna wiring, any sharp edges, the AC power and the high voltage power. Carefully check if the wiring is too tight, incorrectly placed or loose. Never change the space between the part and the printed circuit board. Check the AC power cord for possible damages. Keep the part or the lead away from any heat-emitting materials.

10. Safety Indication:
    Some electrical circuits or device related materials require special attention to their safety features, which cannot be viewed by the naked eye. If an original part is replaced with another irregular one, the safety or protective features will be lost even if the new one has a higher voltage or more watts.

    Critical safety parts should be bracketed with (⚡ ⚠). Use only regular parts for replacements (in particular, flame resistance and dielectric strength specifications). Irregular parts or materials may cause electric shock or fire.

1-2 Servicing Precautions

Warning 1: First carefully read the "Safety Instruction" in this service manual.
When there is a conflict between the service and the safety instructions, follow the safety instruction at all times.

Warning 2: Any electrolytic capacitor with the wrong polarity will explode.

1. The service instructions are printed on the cabinet, and should be followed by any service personnel.

2. Make sure to unplug the AC power cord from the power source before starting any repairs.
   (a) Remove or re-install parts or assemblies.
   (b) Disconnect the electric plug or connector, if any.
   (c) Connect the test part in parallel with the electrolytic capacitor.

3. Some parts are placed at a higher position than the printed board. Insulated tubes or tapes are used for this purpose. The internal wiring is clamped using buckles to avoid contact with heat emitting parts. These parts are installed back to their original position.

4. After the repair, make sure to check if the screws, parts or cables are properly installed. Make sure no damage is caused to the repaired part and its surroundings.

5. Check for insulation between the blade of the AC plug and that of any conductive materials (i.e. the metal panel, input terminal, earphone jack, etc).

6. Insulation Check Process: Unplug the power cord from the AC source and turn the switch on. Connect the insulating resistance meter (500v) to the AC plug blade.

   The insulating resistance between the blade of the AC plug and that of the conductive material should be more than 1 MΩ.

7. Any B+ interlock should not be damaged.
   If the metal heat sink is not properly installed, no connection to the AC power should be made.

8. Make sure the grounding lead of the tester is connected to the chassis ground before connecting to the positive lead. The ground lead of the tester should be removed last.

9. Beware of risks of any current leakage coming into contact with the high-capacity capacitor.

10. The sharp edges of the metal material may cause physical damage, so ensure wearing protective gloves during the repair.

1-3 Static Electricity Precautions

1. Some semi-conductive ("solid state") devices are vulnerable to static electricity. These devices are known as ESD. ESD includes the integrated circuit and the field effect transistor. To avoid any materials damage from electrostatic shock, follow the instructions described below.

2. Remove any static electricity from your body by connecting the earth ground before handling any semi-conductive parts or ass'ys. Alternatively, wear a dischargeable wrist-belt.
   (Make sure to remove any static electricity before connecting the power source - this is a safety instruction for avoiding electric shock)

3. Remove the ESD ass'y and place it on a conductive surface such as aluminum foil to prevent accumulating static electricity.

4. Do not use any Freon-based chemicals.
   Such chemicals will generate static electricity that causes damage to the ESD.

5. Use only grounded-tip irons for soldering purposes.

6. Use only anti-static solder removal devices.
   Most solder removal devices do not support an anti-static feature. A solder removal device without an anti-static feature can store enough static electricity to cause damage to the ESD.

7. Do not remove the ESD from the protective box until the replacement is ready. Most ESD replacements are covered with lead, which will cause a short to the entire unit due to the conductive foam, aluminum foil or other conductive materials.

8. Remove the protective material from the ESD replacement lead immediately after connecting it to the chassis or circuit ass'y.

9. Take extreme caution in handling any uncovered ESD replacements. Actions such as brushing clothes or lifting your leg from the carpet floor can generate enough static electricity to damage the ESD.

CAUTION

These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

1-4 Installation Precautions

1. For safety reasons, more than two people are required for carrying the product..

2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.

3. Do not place the projector in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.

4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.

5. Make sure to turn the power off and unplug the power cord from the outlet before removing the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.

6. Keep the antenna far away from any high-voltage cables and install it firmly. Contacting the high-voltage cable or the antenna falling over may cause fire or electric shock.

7. When connecting the RF antenna, check for a DTV receiving system and install a separate DTV reception antenna for areas with no DTV signal.

8. Check the basics of the screen test.
   - Image position/size, Tilt adjustment

MEMO

2. Product Specification

2-1 Product Features

Block	Specfication	EU	East asia/CIS	Remark
CRT	- Slimmer than existing CRTs Existing: 495mm → Slimfit : 365mm	Vixlim CRT	Vixlim CRT	
RF Part	- Same as for the Negotiator(S61A) Model	TMQZ2-402A, PAL-CW	TMQZ2-401A, PAL-CS	
Power	- Input Voltage : AC 230V (Europe) - Stand-By : Less than 3W	STR-X6750	STR-X6750	
Video	- PAL/SECAM/NT4.43 - Interlace 100Hz(Simple 100Hz)	VSP9402 CXA2165	VSP9402 CXA2165	
Audio	- Output : 10W x 2 - Function : A2/Nicam,SRS-WOW	STV8237	STV8237	
Cabinet	- New Front and Back Cabinets - 184mm of saved space compared to the existing model A11:580mm → Z30:396mm	Z30(OZ) Design Applied FPTV Looking Design Black Bezel 2Tone Color Design	Z30(OZ) Design Applied FPTV Looking Design Black Bezel 2Tone Color Design	

■ Core Parts Functions

- VSP9402 : RF-CVBS,EXT-CVBS,FRONT Y,C,SCART1 R/G/B input and Video Signal Processing.
- CXA2165 : H-out,VD-P,VD-N,RGB output,Video and Deflection Signal Processing.
- STV8237 : Provides S-IF,Analog audio and Digital audio signal input and decoding functions.
- SDA5550 : I2C-Comunication,Master Control Micom.
- M27W201 : ROM Micom

2-2 Key Features

Model	WS32Z30 / CW29Z30 (Europe)	WS32Z30 / CS29Z30 (CIS)
Voltage	AC230V	160~300V
Frequency of Operation	50/60 Hz	50/60 Hz
Dimensions(mm)	934X399X568 (32") 796X421X593 (29")	934X399X568 (32") 796X421X593 (29")
Weight	54.5Kg (32") 43.0Kg (29")	54.5Kg (32") 43.0Kg (29")

■ H/W Configuration
- Slimfit(Low Depth) CRT adopted
- Interlace 100Hz(Simple 100Hz)

■ S/W Configuration
- 10page TTX(Europe,CIS),200Page TTX (Europe Option)
- Multi System PAL/SECAM(CIS Option:NTSC4.43/NTSC3.58)
- ATS,Auto Wide,Pre Channel,On/Off Timer,Zoom,Blue Screen

■ Picture
- System : Video PAL/SECAM/ NTSC3.58(CIS Option)
  Sound B/G , D/K , I , L/L' , M(CIS Option)
- Black Level expansion , CTI , VM, Dynamic focus
- AKB(Auto kinetic Bias)
- Still picture , Digital Noise reduction
- PIP (2Tuner) : Option
- Panorama

■ Sound
- System : Niacam Stereo , SRS-WOW
- Output : 10W+10W
- Speaker : 2EA
- AVL , Melody , Turbo , Auto Stereo , Auto Mute , Equalize

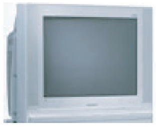
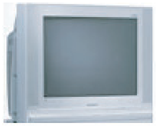
■ In/Out Terminals
- Side : 1 CVBS Input, 1 S-Video Input, Sound L/R
- Rear
  * EU/CIS :21P SCART x 2 Input/Output (SCART1 RGB Input)

■ Remocon : TM79

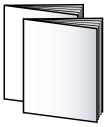
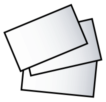
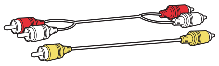
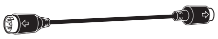
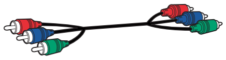
■ Power Supply
- Europe(230V), CIS(160V- 300V)

■ Power Comsumption
- Stand-by : 3W
- Max Power : 180W

2-3 Specifications Analysis

Model		WS32A116VG	WS32A116VN	WS32Z30/CW29Z30
Chassis		K55A	S61A	S62B
Design				
Basic	Product Type	FLAT CRT	FLAT CRT	Slimfit CRT
	Digital Display	-	-	-
	Screen Size	32 inch	32 inch	32 / 29 inch
	Aspect Ratio	16:9	16:9	16:9 / 4:3
Visual Quality	Progressive Scan	-	-	-
	Digital Comb Filter	-	-	-
	Screen Pitch	0.68	0.68	0.73
	AKB	○	○	○
	Digital Noise Reduction	○	○	○
	DNIe	-	-	-
	3:2 Pull Down Support	-	-	-
Audio	Base/Treble/Balance	-	-	-
	Equalizer	5 Band	5 Band	5 Band
	AVL	○	○	○
	Surround	Virtual-Dolby	Virtual-Dolby	SRS-WOW
	Speaker System	SEMI-DOME	SEMI-DOME	Direct
	Speaker Output	15W + 15W	15W + 15W	10W + 10W
Function	Dual Screen Function	-	-	-
	Double Screen	-	-	-
	TTX	10page/200page(Option)	10page/200page(Option)	10page/200page(Option)
	Still Picture	○	○	○
	Auto Jack Recognition	-	-	-
Ports	Antenna In	Rear : 1	Rear : 1	Rear : 1
	External In	Rear:2, Side:1	Rear:2, Side:1	Rear:2, Side:1
	S-Video	Side : 1	Side : 1	Side : 1
	Y/Pb/Pr	-	-	-
	PC	-	-	-
	DVI	-	-	-
	HDMI	-	-	-
	Digital Audio Out	-	-	-
	Video Out	Rear : 1	Rear : 1	Rear : 1
	Audio Out	Rear : 1	Rear : 1	-

2-4 Accessories

Accessories		Item	Item code	Remark
Supplied Accessories		Remote Control AAA Alkaline Battery (2)	AA59-00370B 4301-000121	Samsung Service center
		Owner's Instructions Safety Guide Manual	AA68-03660A AA68-03242E	
		Warranty Card Registration Card	BN68-00514B HA68-02329A	
Accessories that can be purchased additionally		Video Cable / Audio Cable	-	Internal shopping mall
		Antenna Cable	-	
		Component Cable	-	

3. Alignment & Adjustment

3-1 Service Instruction

1. General Adjustment :
In general, a color TV can provide ideal visual quality by adjusting the basic settings such as the vertical size, horizontal size, focus, etc.
Display a black and white picture on the screen to check if the picture is clearly displayed.
If there are some 'spotted' points on the screen when displaying a black and white picture, degauss the screen using the degauss coil. If the spotted points remain, re-adjust the purity and the convergence. This completes the basic performance examination.

⚠ Notice.

- These adjustments and the check list are only applied to S62B chassis-applied models.
- Only use 230V for the measurement set. It is recommended using an insulation transformer when supplying power to the set so as to prevent shock to the set or to yourself.
- These adjustment specifications have been created on the basis of the domestic S62B chassis-applied remote control model. Some of the contents may be changed subject to the sales location and the product specifications.

2. When replacing the F_Box Board :
Since the software is loaded to the EPROM of the F_box board, check the version of the software of the EPROM.
To check the version of the software, Enter service mode presee the key on the reomte control according to the following seguenu.
(in stand-by status) Info→Menu→Mute→Power→ON
The software information will then be displayed below the OSD menu.
The notation of the software information : For example, T_SHPEU_1009 refers to "CORSET BASIC MODEL Europe. ver.1009". Since the settings including the Channel information, Deflection, etc. are saved to the nvRAM, reconfigure these settings when replacing the System Board

3. When replacing the Deflection Board :
Tilt adjustment, focus adjustment, screen voltage setting and W/B adjustment are all required.

4. When replacing the Main Board : No adjustments required.

5. When replacing the CRT Ass'y : No adjustments required.

6. When replacing the front panel master power switch : No adjustments required.

7. When replacing the Side AV : No adjustments required.

8. When replacing the control switch : No adjustments required.

3-2 How to Access Service Mode

1. To enter Service Mode, press the keys on the remote control according to the following sequence. (in Stand-by status)

Info → Menu → Mute → Power On

※ When failing to enter Service Mode, repeat the procedure above.

2. The initial screen of Service Mode.

< Europe>

Service / T_SHPEU_XXXX
Option (XX XX XX)
Deflection
Video Adjust 1
Video Adjust 2
Video Adjust 3
Video Adjust 4
Video Adjust 5
YC Delay
EEPROM
Checksum(XXXX)
Reset / XX-XX-XX

<Asia/CIS>

Service / T_SHPAS_XXXX
Deflection
480/576P Deflect Offset
1080i Deflect Offset
4:3 Offset -- Vixlim
Video Adjust 1
Video Adjust 2
Video Adjust 3
Video Adjust 4
Video Adjust 5
Video Adjust 6
DTV Video Adjust
DTV Video Adjust2
YC Delay
EEPROM
Option (XX XX XX)
Checksum(XXXX)
Reset / XX-XX-XX

3. Functions of the Keys within Service Mode

MENU	Show all menus
▲ / ▼	Move the cursor to select an item.
◀ / ▶	Adjust the selected configuration value

3-3 Factory Data

■ Europe

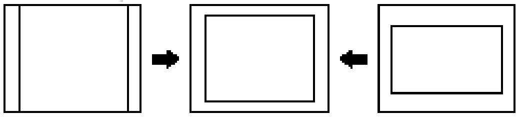
1. Deflection Adiustment (PAL)

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	V Amp	38	38	Adjust
1	V_SHIFT	26	24	Adjust
2	H EW	43	24	Adjust
3	H Shift	34	41	Adjust
4	V Linearity	6	6	Fix
5	Upper-Linearity	6	2	Fix
6	Lower-Linearity	1	2	Fix
7	V SC	3	5	Fix
8	H Parablar	42	42	Adjust
9	Upper Corner	30	34	Adjust
10	Lower Corner	39	37	Adjust
11	H Trapezium	26	28	Adjust
12	Bow	33	34	Fix
13	Angle	32	34	Fix
14	V Position	40	40	Fix

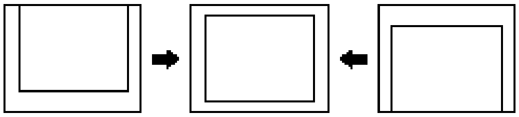
2. Deflection Adiustment (NTSC)

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	V Amp	0	0	Fix
1	V_SHIFT	1	0	Fix
2	H EW	3	-1	Fix
3	H Shift	5	5	Fix
4	V Linearity	2	2	Fix
5	Upper-Linearity	1	1	Fix
6	Lower-Linearity	-1	-1	Fix
7	V SC	0	0	Fix
8	H Parablar	1	1	Fix
9	Upper Corner	-3	-3	Fix
10	Lower Corner	1	1	Fix
11	H Trapezium	-8	-8	Fix
12	Bow	1	1	Fix
13	Angle	3	3	Fix
14	V Position	0	1	Fix

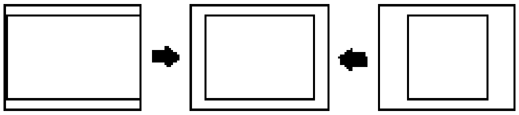
0 V - Amp



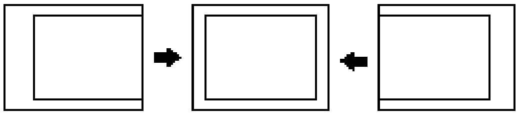
1 V-Shift



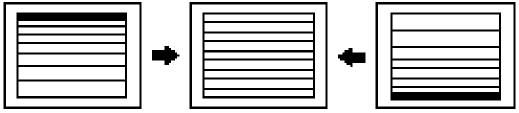
2 H-EW



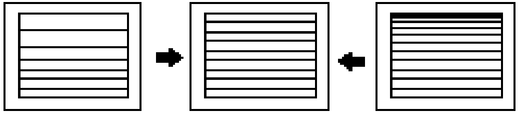
3 H-Shift



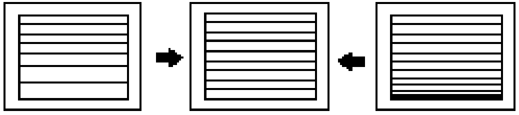
4 V-Linearity



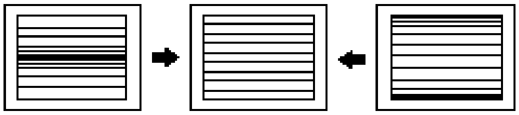
5 Upper Linearity



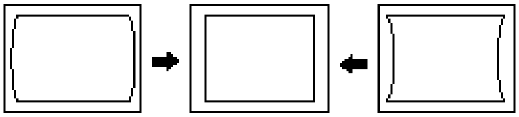
6 Low Linearity



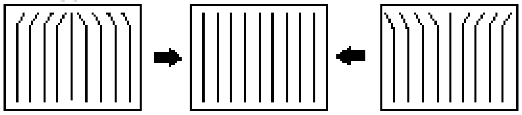
7 V SC



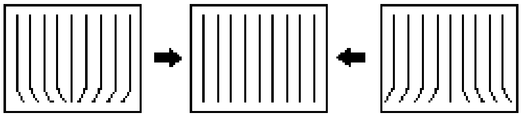
8 H-Parabola



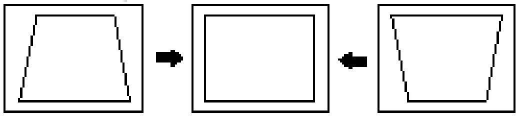
9 Upper Coner



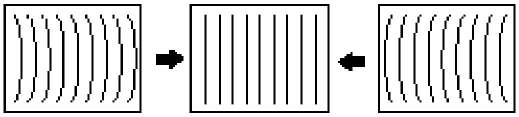
10 Low Coner



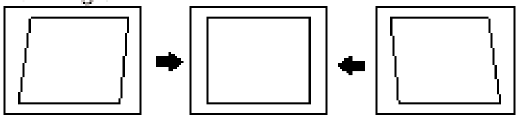
11 H- Trapezuim



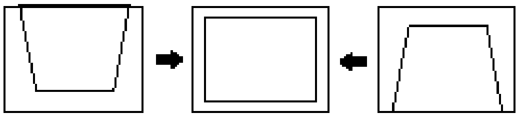
12 Bow



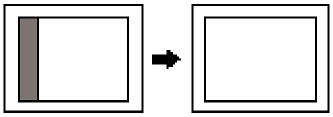
13 Angle



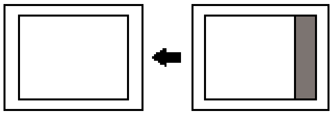
14 V Position



15 CXA Left BLK



16 CXA Right BLK



3. 4:3 Offset__Vixlim

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	H Parablar_Pal	0	0	Adjust
1	Upper Corner_Pal	0	0	Adjust
2	Lower Corner_Pal	0	0	Adjust
3	Bow_Pal	0	0	Adjust
4	Angle_Pal	0	0	Adjust
5	H Shift_Pal	0	0	Adjust
6	H Parablar_NTSC	0	0	Adjust
7	Upper Corner_NTSC	0	0	Adjust
8	Lower Corner_NTSC	0	0	Adjust
9	Bow_NTSC	0	0	Adjust
10	Angle_NTSC	0	0	Adjust
11	H Shift_NTSC	0	0	Adjust

4. Video Adjustment 1

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	EE_R_CUTOFF,	32	32	Adjust
1	EE_G_CUTOFF,	32	32	Fix
2	EE_B_CUTOFF,	32	32	Adjust
3	Color On / Off	1	1	Adjust
4	CR Offset	30	30	Fix
5	CB Offest	30	30	Fix
6	R Drive	37	37	Adjust
7	G Drive	32->38	38	Fix
8	B Drive	29	29	Adjust
9	Sub Bright	44	44	Adjust
10	Sub Contrast	6	6	Adjust
11	Sub Color	9	9	Fix
12	Secam sub color	5	5	Fix
13	Sub Tint	28	28	Fix
14	CTI Level	1	1	Fix
15	Color AXIS	1	1	Fix
16	LTI Level	1->3	3	Fix
17	VSU	5	4	Fix
18	Melody volume	9	9	Fix
19	Video mute time	6	6	Fix

5. Video Adjustment 2

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	ABL Mode	3	3	Fix
1	Gamma	2	2	Fix
2	DPIC Level	2	2	Fix
3	DC Trans	2->1	1	Fix
4	ABL-TH	14	3	Fix
5	VM-Level	2	1	Fix
6	VM-Coring	2	2	Fix
7	VM-f0	2	2	Fix
8	VM-Limit	2	0	Fix
9	VM-Delay	1	1	Fix
10	SHP CD	1	1	Fix
11	SHP f0	1	1	Fix
12	SHP f1& p/o	10	11	Fix
13	AKB Time	13	13	Fix
14	Coring	0	0	Fix
15	Bandpass	7	7	Fix
16	Highpass	8	8	Fix
17	Bandpass_AV	6	6	Fix
18	Highpass_AV	7	7	Fix
19	Nicam MAE value	255	255	Fix

6. Video Adjustment 3

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	H_EHT comp	4	0	Fix
1	V_EHT comp	5	4	Fix
2	PIN EHT comp	6	5	Fix
3	AFC EHT comp	0	0	Fix
4	Sync Phase	0	0	Fix
5	NR Value	6	6	Fix
6	PIP Contrast	14	14	Fix
7	PIP Bright	0	0	Fix
8	PIP Tint	63	63	Fix
9	PIP Color	6	6	Fix
10	PIP Pal V Pos	28	28	Fix
11	PIP NTSC V Pos	25	25	Fix
12	PIP H Pos	34	34	Fix
13	PIP R Cut off	0	0	Fix
14	PIP G Cut off	0	0	Fix
15	PIP B Cut off	0	0	Fix
16	PIP R Drive	56	56	Fix
17	PIP G Drive	56	56	Fix
18	PIP B Drive	56	56	Fix
19	PIP VSP Delay	5	5	Fix

7. Video Adjustment 4

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	3Pip Pal V position	11	11	Fix
1	3Pip Pal H Position	12	12	Fix
2	3Pip Ntsc V Position	11	11	Fix
3	3Pip Ntsc H Position	19	19	Fix
4	Sync Phase (480p)	0	0	Fix
5	Sync Phase (576p)	1	1	Fix
6	Sync Phase (1080i)	0	0	Fix

8. Video Adjustment 5

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	R_Drive Warm2	3	3	Fix
1	B_Drive Warm2	-9	-9	Fix
2	R_Cutoff_Warm2	6	6	Fix
3	B_Cutoff_Warm2	-11	-11	Fix
4	R_Drive Warm1	2	2	Fix
5	B_Drive Warm1	-2	-2	Fix
6	R_Cutoff_Warm1	3	3	Fix
7	B_Cutoff_Warm1	-2	-2	Fix
8	R_Drive Normal	0	0	Fix
9	B_Drive Normal	0	0	Fix
10	R_Cutoff_Normal	0	0	Fix
11	B_Cutoff_Normal	0	0	Fix
12	R_Drive Cool1	0	0	Fix
13	B_Drive Cool1	4	4	Fix
14	R_Cutoff_Cool1	2	2	Fix
15	B_Cutoff_Cool1	6	6	Fix
16	R_Drive Cool2	-2	-2	Fix
17	B_Drive Cool2	6	6	Fix
18	R_Cutoff_Cool2	0	0	Fix
19	B_Cutoff_Cool2	9	9	Fix

9. YC DELAY

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	P.YC (AV) Delay	-9	-9	Fix
1	S.YC (AV) Delay	-7	-7	Fix
2	N.YC (AV) Delay	-8	-8	Fix
3	P.BG.YC Delay	-8	-8	Fix
4	P.DK.YC Delay	-10	-10	Fix
5	P.I.YC Delay	-10	-10	Fix
6	P.L.YC Delay	-8	-8	Fix
7	S.BG.YC Delay	-6	-6	Fix
8	S.DK.YC Delay	-8	-8	Fix
9	S.I.YC Delay	-10	-10	Fix
10	S.L.YC Delay	-4	-4	Fix
11	N.M.YC Delay	-7	-7	Fix
12	P.60.YC Delay	-10	-10	Fix
13	N.443 YC Delay	-8	-8	Fix

10. EEPROM

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	System	1	1	Fix
1	System (VGA)	2	2	
2	System (480p)	2	2	Fix
3	System (1080i)	3	3	Fix
4	Dynamic Contrast	90	90	Fix
5	Dynamic Brightness	50	50	Fix
6	Dynamic Shapness	50	50	Fix
7	Dynamic Color	50	50	Fix
8	Dynamic Tint	50	50	Fix
9	Dynamic Color Tone	2	2	Fix
10	Standard Contrast	70	70	Fix
11	Standard Brightness	50	50	Fix
12	Standard Shapness	50	50	Fix
13	Standard Color	50	50	Fix
14	Standard Tint	50	50	Fix
15	Standard Color Tone	2	2	Fix
16	Movie Contrast	40	40	Fix
17	Movie Brightness	50	50	Fix
18	Movie Shapness	40	40	Fix
19	Movie Color	45	45	Fix
20	Movie Tint	50	50	Fix
21	Movie Color Tone	2	2	Fix
22	Left Blanking (PAL)			
23	Right Blanking (PAL)			
24	Left Blanking (VGA)			
25	Right Blanking (VGA)			
26	Left Blanking (480p)	215	185	Fix

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
27	Right Blanking(480p)	169	141	Fix
28	Left Blanking(1080i)	141	77	Fix
29	Right Blanking(1080i)	109	175	Fix
30	Brightness (RGB)	236	236	Fix
31	Contrast (RGB)	165	165	Fix
32	U Saturation (RGB)	94	94	Fix
33	V Saturation (RGB)	36	36	Fix
34	DVD Brightness (YPbPr)	221	5	Fix
35	DVD Contrast (YPbPr)	166	166	Fix
36	DVD U Saturation (YPbPr)	122	230	Fix
37	DVD V Saturation (YPbPr)	57	38	Fix
38	9402 Y Gain	175	175	Fix
39	9402 U Gain	71	71	Fix
40	-			
41	9402 V Gain	65	65	Fix
42	CrCb Gain (480p)	119	119	Fix
43	CrCb Gain (1080i)	119	119	Fix
44	LTI Mode	2->1	1	Fix
45	LTI Mode (VGA)			
46	LTI Mode (480p)	1	1	Fix
47	LTI Mode (1080i)	1	1	Fix
48	NR ON value1	85	85	Fix
49	NR ON value2	85	85	Fix
50	NR OFF value1	68	68	Fix
51	NR OFF value2	68	68	Fix
52	NR ON value3	170	170	Fix
53	NR ON value4	170	170	Fix
54	NR OFF value3	34	34	Fix
55	NR OFF value4	34	34	Fix
56	-			
57	SECAM Sensitivity	28	28	Fix
58	Range of R Gain	32	32	Fix
59	Range of G Gain	32	32	Fix
60	Range of B Gain	32	32	Fix
61	Range of F/B Gain	23	23	Fix
62	-			
63	TTX V-Position	40	40	Fix
64	TTX H-Position	180	180	Fix
65	-			
66	Pal Sensitivity (AV mode)	215	234	
67	wide model 4:3 Normal Parabola	0	0	Fix
68	1080i 50HZ Trepezium	15	15	Fix
69	1080i 60HZ Trepezium	13	13	Fix
70	UP-UCG (Up Corner Semi Control)	0	0	Fix
71	LO-UCG (Low Corner Semi Control)	0	0	Fix
72	Vertical Slicing Level	15	15	Fix

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
73	Vertical Sync Lowpass-Filter	13	13	Fix
74	Amplifier Current Setting of Oscillator Pad	2	2	Fix
75	PAL Sensitivity	185	185	Fix
76	Chroma Sensitivity(PAL) and the Priority Order	215	215	Fix
77	Adjusting Chroma PLL	1	1	
78	WSS 4:3 Panorama			
79	NT left blank	79	79	Fix
80	NT Right blank	126	126	Fix
81	Progressive TTX V Position			
82	Progressive TTX H-Position			
83	3Pip Pal V position			
84	3Pip Pal H Position			
85	3Pip Ntsc V Position			
86	3Pip Ntsc H Position			
87	-			
88	-			
89	-			
90	RF SubBright	124	124	Fix
91	TTX Sub Brightness	235	235	Fix
92	Left Blanking	101	101	Fix
93	Right Blanking	153	153	Fix
94	S - ABL	0	0	Fix
95	P - ABL	48	80	Fix
96	Picture Limit Level	3	3	Fix
97	OSD Level (LRGB2_LEV)	10	10	Fix
98	TTX Level (LRGB2_LEV)	3	3	Fix
99	AGCADJ1	238	238	Fix
100	AGCADJ2	110	110	Fix
101	ON TIMER CH memory	1	1	Fix
102	COMPONENT2 OSD Brightness	10	10	Fix

196	TNR1	207	207	Fix
197	TNR2	149	149	Fix
198	TNR3	95	95	Fix
199	TNR4	63	63	Fix
200	TNR5	47	47	Fix
201	TNR6	31	31	Fix
202				Fix
203				Fix
204				Fix
205	HPLL timing	156	156	Fix
206	SECAM MODE INITIAL DATA	76	76	Fix
207	SECAM MODE INITIAL DATA	64	64	Fix

244	Zoom2 H-para offset	-1	2	Fix
245	Initialize	171	171	Fix

251	PL preventive measure caused by FBT high pressure	250	250	Fix
252	PL preventive measure caused by FBT high pressure	40	40	Fix
253	PL preventive measure caused by FBT high pressure	150	150	Fix
254	Z00M1 OFFSET	-6	-2	Fix
255	Z00M2 OFFSET	-10	-5	Fix

11. Option

No	Option Byte	WS32Z306VB	CW29Z306VB	Alterable Change Mode	Remark
		Data	Data		
1	CRT	Wide	4:3	Wide / 4:3	depending on the CRT
2	AV_JACK	Scart	Scart	Scart / RCA	
3	DTV	Off	Off	On / Off	
4	PIP	Off	Off	2-Tuner/1-Tuner/Off	depending on the model
5	LNA	Off	Off	On / Off	On: 2T PIP LNA All model Off: 1Tuner/No PIP
6	SEARCH_LNA	Off	Off	On / Off	
7	Sound	SRS	SRS	SRS / A2-NICAM	
8	Auto FM	On	On	On / Off	
9	Tilt	On	On	On / Off	
10	High Deviation	Off	Off	On / Off	
11	Woofer	Off	Off	On / Off	
12	TTX Group	OSD Language	OSD Language	Table	TTX Language Group
13	TTX List	Off	Off	On / Off	On : Australia,Newzealand Off: Europe,CIS,Asia
14	Digital NR	On / Off	On	On	
15	AGC on/off	Off	Off	On / Off	
16	Blue Screen	On	On	On / Off	

■ Asia / CIS

1. Deflection Adiustment (PAL)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	38	29	39	Adjust
1	V_SHIFT	23	23	23	Adjust
2	H EW	37	26	37	Adjust
3	H Shift	38	40	43	Adjust
4	V Linearity	3	6	5	Fix
5	Upper-Linearity	2	6	4	Fix
6	Lower-Linearity	4	1	2	Fix
7	V SC	4	3	4	Fix
8	H Parablar	38	42	43	Adjust
9	Upper Corner	30	30	36	Adjust
10	Lower Corner	36	39	36	Adjust
11	H Trapezium	25	26	37	Adjust
12	Bow	32	33	34	Fix
13	Angle	34	32	30	Fix
14	V Position	40	40	40	Fix
15	CXA2151 Sub01	68	68	68	Fix
16	CXA2151 Sub02	1	1	1	Fix
17	Zoom1 Tra-offset	-4	-6	-2	Fix
18	Zoom2 Tra-offset	-7	-10	-8	Fix

2. Deflection Adiustment (NTSC)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	0	0	0	Fix
1	V_SHIFT	3	2	3	Fix
2	H EW	-1	1	-1	Fix
3	H Shift	-3	9	-3	Fix
4	V Linearity	2	2	2	Fix
5	Upper-Linearity	1	1	1	Fix
6	Lower-Linearity	-1	-1	-1	Fix
7	V SC	0	0	0	Fix
8	H Parablar	2	0	2	Fix
9	Upper Corner	-1	-3	-1	Fix
10	Lower Corner	2	1	2	Fix
11	H Trapezium	-6	-7	-6	Fix
12	Bow	0	0	0	Fix
13	Angle	0	-1	0	Fix
14	V Position	0	0	0	Fix
15	CXA2151 Sub01	68	68	68	Fix
16	CXA2151 Sub02	1	1	1	Fix
17	Zoom1 Tra-offset	-4	-6	-2	Fix
18	Zoom2 Tra-offset	-7	-10	-8	Fix

3. 576P Deflect Offset

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	0	0	0	Fix
1	V_SHIFT	-1	-1	2	Fix
2	H EW	-6	-6	-6	Fix
3	H Shift	-12	-12	-12	Fix
4	V Linearity	0	0	0	Fix
5	Upper-Linearity	0	0	0	Fix
6	Lower-Linearity	0	0	0	Fix
7	V SC	0	0	0	Fix
8	H Parablar	-1	-1	-1	Fix
9	Upper Corner	5	5	5	Fix
10	Lower Corner	-3	-3	-3	Fix
11	H Trapezium	13	13	13	Fix
12	Bow	0	0	0	Fix
13	Angle	0	0	0	Fix
14	V Position	0	0	0	Fix
15	CXA2151 Sub01	232	232	232	Fix
16	CXA2151 Sub02	97	97	97	Fix
17	Zoom1 Tra-offset	0	0	0	Fix
18	Zoom2 Tra-offset	0	0	0	Fix

4. 480P Deflect Offset

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	0	0	0	Fix
1	V_SHIFT	0	0	0	Fix
2	H EW	-3	-3	-3	Fix
3	H Shift	-19	-19	-22	Fix
4	V Linearity	0	0	0	Fix
5	Upper-Linearity	0	0	0	Fix
6	Lower-Linearity	0	0	0	Fix
7	V SC	0	0	0	Fix
8	H Parablar	0	0	0	Fix
9	Upper Corner	2	2	2	Fix
10	Lower Corner	-1	-1	-1	Fix
11	H Trapezium	7	7	7	Fix
12	Bow	0	0	0	Fix
13	Angle	0	0	0	Fix
14	V Position	0	0	0	Fix
15	CXA2151 Sub01	232	232	232	Fix
16	CXA2151 Sub02	97	97	97	Fix
17	Zoom1 Tra-offset	0	0	0	Fix
18	Zoom2 Tra-offset	0	0	0	Fix

5. 1080i Deflect Offset

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	12	12	11	Fix
1	V_SHIFT	-6	-6	0	Fix
2	H EW	-22	-22	-22	Fix
3	H Shift	0	0	0	Fix
4	V Linearity	-6	-6	0	Fix
5	Upper-Linearity	0	0	4	Fix
6	Lower-Linearity	5	5	1	Fix
7	V SC	0	0	0	Fix
8	H Parablar	-15	-15	-20	Fix
9	Upper Corner	10	10	0	Fix
10	Lower Corner	-1	-1	-3	Fix
11	H Trapezium	15	15	10	Fix
12	Bow	1	1	0	Fix
13	Angle	-2	-2	0	Fix
14	V Position	0	0	0	Fix
15	CXA2151 Sub01	196	196	196	Fix
16	CXA2151 Sub02	97	97	97	Fix
17	Zoom1 Tra-offset	0	0	0	Fix
18	Zoom2 Tra-offset	0	0	0	Fix

6. 4:3 Offset__Vixlim

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	H Parablar_Pal	0	0	0	Adjust
1	Upper Corner_Pal	0	0	0	Adjust
2	Lower Corner_Pal	0	0	0	Adjust
3	Bow_Pal	0	0	0	Fix
4	Angle_Pal	0	0	0	Fix
5	H Shift_Pal	0	0	0	Adjust
6	H Parablar_NTSC	0	0	0	Adjust
7	Upper Corner_NTSC	0	0	0	Adjust
8	Lower Corner_NTSC	0	0	0	Adjust
9	Bow_NTSC	0	0	0	Fix
10	Angle_NTSC	0	0	0	Fix
11	H Shift_NTSC	0	0	0	Adjust

7. Video Adjustment 1

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	EE_R_CUTOFF,	40	40	32	Adjust
1	EE_G_CUTOFF,	32	32	32	Fix
2	EE_B_CUTOFF,	36	36	32	Adjust
3	Color On / Off	1	1	1	Adjust
4	CR Offset	30	30	30	Fix
5	CB Offest	30	30	30	Fix
6	R Drive	41	41	37	Adjust
7	G Drive	38	38	35	Fix
8	B Drive	38	38	29	Adjust
9	Sub Bright	44	44	44	Adjust
10	Sub Contrast	9	9	6	Adjust
11	Sub Color_Pal	9	9	18	Fix
12	Sub Color_NTSC	20	20	16	Fix
13	Secam sub color	5	5	5	Fix
14	Sub Tint	28	28	28	Fix
15	CTI Level	1	1	1	Fix
16	Color AXIS	1	1	1	Fix
17	LTI Mode	1	1	1	Fix
18	LTI Level	3	3	3	Fix
19	VSU	3	5	5	Fix
20	Melody volume	9	9	9	Fix
21	Video mute time	6	6	6	Fix

8. Video Adjustment 2

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	ABL Mode	3	3	3	Fix
1	Gamma	2	2	3	Fix
2	DPIC Level	3	3	3	Fix
3	DC Trans	1	1	1	Fix
4	ABL-TH	3	3	3	Fix
5	VM-Level	1	1	1	Fix
6	VM-Coring	2	2	2	Fix
7	VM-f0	2	2	2	Fix
8	VM-Limit	0	0	0	Fix
9	VM-Delay	1	1	1	Fix
10	SHP CD	1	1	1	Fix
11	SHP f0	1	1	1	Fix
12	SHP f1& p/o	11	11	11	Fix
13	AKB Time	13	13	13	Fix
14	Coring	0	0	0	Fix
15	Bandpass	7	7	12	Fix
16	Highpass	8	8	11	Fix
17	Bandpass_AV	6	6	10	Fix
18	Highpass_AV	7	7	8	Fix

9. Video Adjustment 3

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	H_EHT comp	0	2	0	Fix
1	V_EHT comp	4	5	4	Fix
2	PIN EHT comp	5	6	5	Fix
3	AFC EHT comp	0	0	0	Fix
4	Sync Phase	0	0	0	Fix
5	NR Value	6	6	6	Fix
6	PIP Contrast	14	14	14	Fix
7	PIP Bright	0	0	0	Fix
8	PIP Tint	63	63	63	Fix
9	PIP Color	6	6	6	Fix
10	PIP Pal V Pos	28	28	28	Fix
11	PIP NTSC V Pos	25	25	25	Fix
12	PIP H Pos	34	34	34	Fix
13	PIP R Cut off	0	0	0	Fix
14	PIP G Cut off	0	0	0	Fix
15	PIP B Cut off	0	0	0	Fix
16	PIP R Drive	56	56	56	Fix
17	PIP G Drive	56	56	56	Fix
18	PIP B Drive	56	56	56	Fix
19	PIP VSP Delay	5	5	5	Fix

10. Video Adjustment 4

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	3Pip Pal V position	11	11	11	Fix
1	3Pip Pal H Position	12	12	12	Fix
2	3Pip Ntsc V Position	11	11	11	Fix
3	3Pip Ntsc H Position	19	19	19	Fix
4	Sync Phase (480p)	1	1	0	Fix
5	Sync Phase (576p)	1	1	0	Fix
6	Sync Phase (1080i)	0	0	0	Fix

11. Video Adjustment 5

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	R_Drive Warm2	3	3	7	Fix
1	B_Drive Warm2	-9	-9	-19	Fix
2	R_Cutoff_Warm2	6	6	13	Fix
3	B_Cutoff_Warm2	-11	-11	-16	Fix
4	R_Drive Warm1	2	2	6	Fix
5	B_Drive Warm1	-2	-2	-12	Fix
6	R_Cutoff_Warm1	3	3	6	Fix
7	B_Cutoff_Warm1	-2	-2	-11	Fix
8	R_Drive Normal	0	0	4	Fix
9	B_Drive Normal	0	0	-9	Fix
10	R_Cutoff_Normal	0	0	3	Fix
11	B_Cutoff_Normal	0	0	-9	Fix
12	R_Drive Cool1	0	0	2	Fix
13	B_Drive Cool1	4	4	-3	Fix
14	R_Cutoff_Cool1	2	2	2	Fix
15	B_Cutoff_Cool1	6	6	-2	Fix
16	R_Drive Cool2	-2	-2	0	Fix
17	B_Drive Cool2	6	6	0	Fix
18	R_Cutoff_Cool2	0	0	0	Fix
19	B_Cutoff_Cool2	9	9	0	Fix

12. Video Adjustment 6

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	R drive offset 1080i	1	1	1	Fix
1	G drive offset 1080i	5	5	5	Fix
2	R cutoff offset 1080i	-11	-11	-11	Fix
3	G cutoff offset 1080i	-22	-22	-22	Fix
4	R drive offset 480P	-2	-2	-2	Fix
5	G drive offset 480P	0	0	0	Fix
6	R cutoff offset 480P	-5	-5	-5	Fix
7	G cutoff offset 480P	-1	-1	-1	Fix
8	R drive offset 576P	-2	-2	-2	Fix
9	G drive offset 576P	0	0	0	Fix
10	R cutoff offset 576P	-1	-1	-1	Fix
11	G cutoff offset 576P	8	8	8	Fix
12	R drive offset 480i	0	0	0	Fix
13	G drive offset 480i	1	1	1	Fix
14	R cutoff offset 480i	2	2	2	Fix
15	G cutoff offset 480i	0	0	0	Fix
16	R drive offset 576i	-3	-3	-3	Fix
17	G drive offset 576i	0	0	0	Fix
18	R cutoff offset 576i	6	6	6	Fix
19	G cutoff offset 576i	2	2	2	Fix

13. DTV Video Adjustment(480p)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	Sub Bright	37	37	37	Fix
1	Sub Contrast	10	10	10	Fix
2	Sub Color	16	16	16	Fix
3	Sub Tint (Hue)	29	29	29	Fix
4	Color AXIS	1	1	1	Fix
5	LTI mode	1	1	1	Fix
6	VM-Level	2	2	2	Fix
7	VM-Coring	2	2	2	Fix
8	VM-f0	0	0	0	Fix
9	VM-Limit	1	1	1	Fix
10	VM-Delay	2	2	2	Fix
11	SHP CD	1	1	1	Fix
12	SHP f0	1	1	1	Fix
13	SHP f1& p10	12	12	12	Fix
14	LTI level	2	2	2	Fix

14. DTV Video Adjustment(576p)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	Sub Bright	34	34	34	Fix
1	Sub Contrast	11	11	11	Fix
2	Sub Color	20	20	20	Fix
3	Sub Tint (Hue)	29	29	29	Fix
4	Color AXIS	1	1	1	Fix
5	LTI mode	1	1	1	Fix
6	VM-Level	2	2	2	Fix
7	VM-Coring	2	2	2	Fix
8	VM-f0	0	0	0	Fix
9	VM-Limit	1	1	1	Fix
10	VM-Delay	2	2	2	Fix
11	SHP CD	1	1	1	Fix
12	SHP f0	1	1	1	Fix
13	SHP f1& p10	12	12	12	Fix
14	LTI level	2	2	2	Fix

15. DTV Video Adjustment(1080i)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	Sub Bright	12	12	12	Fix
1	Sub Contrast	0	0	0	Fix
2	Sub Color	18	18	18	Fix
3	Sub Tint (Hue)	29	29	29	Fix
4	Color AXIS	1	1	1	Fix
5	LTI mode	1	1	1	Fix
6	VM-Level	2	2	2	Fix
7	VM-Coring	2	2	2	Fix
8	VM-f0	0	0	0	Fix
9	VM-Limit	1	1	1	Fix
10	VM-Delay	2	2	2	Fix
11	SHP CD	1	1	1	Fix
12	SHP f0	1	1	1	Fix
13	SHP f1& p10	12	12	12	Fix
14	LTI level	1	1	1	Fix
15	H_EHT comp_1080i	1	1	0	Fix
16	V_EHT comp_1080i	3	3	4	Fix
17	PIN EHT comp_1080i	5	5	5	Fix
18	ABL TH_1080i	3	3	3	Fix

16. DTV Video Adjustment 2

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	EEP_GAMMA_480P	1	1	1	Fix
1	EEP_DPIC_LEVEL_480P	2	2	2	Fix
2	DC_TRANS_480P	3	3	3	Fix
3	EEP_GAMMA_576P	1	1	1	Fix
4	EEP_DPIC_LEVEL_576P	2	2	2	Fix
5	DC_TRANS_576P	3	3	3	Fix
6	EEP_GAMMA_1080I	1	1	1	Fix
7	EEP_DPIC_LEVEL_1080I	2	2	2	Fix
8	DC_TRANS_1080I	3	3	3	Fix

17. YC DELAY

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	P.YC (AV) Delay	-9	-9	-9	Fix
1	S.YC (AV) Delay	-7	-7	-7	Fix
2	N.YC (AV) Delay	-8	-8	-8	Fix
3	P.BG.YC Delay	-10	-10	-12	Fix
4	P.DK.YC Delay	-10	-10	-11	Fix
5	P.I.YC Delay	-10	-10	-11	Fix
6	P.M.YC Delay	-10	-10	-10	Fix
7	P.L.YC Delay	-10	-10	-10	Fix
8	S.BG.YC Delay	-6	-6	-12	Fix
9	S.DK.YC Delay	-8	-8	-8	Fix
10	S.I.YC Delay	-10	-10	-10	Fix
11	S.M.YC Delay	-10	-10	-10	Fix
12	S.L.YC Delay	-4	-4	-4	Fix
13	N.M.YC Delay	-10	-10	-10	Fix

18. EEPROM

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	System	1	1	1	Fix
1	System (VGA)	1	1	1	Fix
2	System (480p)	2	2	2	Fix
3	System (1080i)	3	3	3	Fix
4	Dynamic Contrast	90	90	100	Fix
5	Dynamic Brightness	50	50	55	Fix
6	Dynamic Shapness	50	50	75	Fix
7	Dynamic Color	50	50	55	Fix
8	Dynamic Tint	50	50	50	Fix
9	Dynamic Color Tone	2	2	0	Fix
10	Standard Contrast	70	70	80	Fix
11	Standard Brightness	50	50	50	Fix
12	Standard Shapness	50	50	50	Fix
13	Standard Color	50	50	50	Fix
14	Standard Tint	50	50	50	Fix
15	Standard Color Tone	2	2	2	Fix
16	Movie Contrast	40	40	50	Fix
17	Movie Brightness	50	50	55	Fix
18	Movie Shapness	40	40	25	Fix
19	Movie Color	45	45	40	Fix
20	Movie Tint	50	50	50	Fix
21	Movie Color Tone	2	2	4	Fix
22	Left Blanking (PAL)				
23	Right Blanking (PAL)				
24	Left Blanking (VGA)				
25	Right Blanking (VGA)				

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
26	Left Blanking (480p)	185	185	145	Fix
27	Right Blanking(480p)	141	141	99	Fix
28	Left Blanking(1080i)	77	77	77	Fix
29	Right Blanking(1080i)	175	175	175	Fix
30	Brightness (RGB)	236	236	236	Fix
31	Contrast (RGB)	165	165	165	Fix
32	U Saturation (RGB)	94	94	94	Fix
33	V Saturation (RGB)	36	36	36	Fix
34	DVD Brightness (YPbPr)	5	5	5	Fix
35	DVD Contrast (YPbPr)	166	166	166	Fix
36	DVD U Saturation (YPbPr)	230	230	230	Fix
37	DVD V Saturation (YPbPr)	38	38	38	Fix
38	9402 Y Gain	175	175	175	Fix
39	9402 U Gain	71	71	71	Fix
40	-				
41	9402 V Gain	65	65	65	Fix
42	CrCb Gain (480p)	255	255	255	Fix
43	CrCb Gain (1080i)	255	255	255	Fix
44	480i_Sub Bright	44	44	44	Fix
45	480i_Sub Contrast	10	10	10	
46	576i_Sub Bright	46	46	46	Fix
47	576i_Sub Contrast	10	10	10	Fix
48	NR ON value1	85	85	85	Fix
49	NR ON value2	85	85	85	Fix
50	NR OFF value1	68	68	68	Fix
51	NR OFF value2	68	68	68	Fix
52	NR ON value3	170	170	170	Fix
53	NR ON value4	170	170	170	Fix
54	NR OFF value3	34	34	34	Fix
55	NR OFF value4	34	34	34	Fix
56	-				
57	SECAM Sensitivity	28	28	28	Fix
58	Range of R Gain	32	32	32	Fix
59	Range of G Gain	32	32	32	Fix
60	Range of B Gain	32	32	32	Fix
61	Range of F/B Gain	23	23	23	Fix
62	-				
63	TTX V-Position	40	40	40	Fix
64	TTX H-Position	180	180	180	Fix
65	-				
66	PAL Sensitivity (AV mode)	234	234	234	Fix
67	wide model 4:3 Normal Parabola	0	0	0	Fix
68	1080i 50HZ Trepezium	255	255	255	Fix
69	1080i 60HZ Trepezium	255	255	255	Fix
70	UP-UCG (Up Corner Semi Control)	0	0	0	Fix
71	LO-UCG (Low Corner Semi Control)	0	0	0	Fix

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
72	Vertical Slicing Level	15	15	15	Fix
73	Vertical Sync Lowpass-Filter	13	13	13	Fix
74	Amplifier Current Setting of Oscillator Pad	2	2	2	Fix
75	PAL Sensitivity	215	215	215	Fix
76	Chroma Sensitivity(PAL) and the Priority Order	215	215	215	Fix
77	Adjusting Chroma PLL	1	1	1	
78	WSS 4:3 Panorama	255	255	255	
79	NT left blank	150	150	150	Fix
80	NT Right blank	92	92	92	Fix
81	Progressive TTX V Position	255	255	255	
82	Progressive TTX H-Position	255	255	255	
83	3Pip Pal V position -> Cr Gain 480p	46	46	46	
84	3Pip Pal H Position -> Cb Gain 480p	35	35	35	
85	3Pip Ntsc V Position -> Cr Gain 576p	43	43	43	
86	3Pip Ntsc H Position -> Cb Gain 576p	30	30	30	
87	Cr Gain 1080i	22	22	22	
88	Cb Gain 1080i	27	27	27	
89	-				
90	RF SubBright	124	124	124	Fix
91	TTX Sub Brightness	235	235	235	Fix
92	Left Blanking(PAL)	101	101	101	Fix
93	Right Blanking(PAL)	153	153	153	Fix
94	S - ABL	0	0	0	Fix
95	P - ABL	80	80	80	Fix
96	Picture Limit Level	3	3	3	Fix
97	OSD Level (LRGB2_LEV)	10	10	7	Fix
98	TTX Level (LRGB2_LEV)	3	3	3	Fix
99	AGCADJ1	238	238	238	Fix
100	AGCADJ2	110	110	110	Fix
101	ON TIMER CH memory	1	1	1	Fix
102	COMPONENT2 OSD Brightness	10	10	10	Fix
168	EEP_DTV _contrast offset_1080i	0	0	0	Fix
169	EEP_Gamma_1080i	2	2	2	Fix
196	TNR1	207	207	207	Fix
197	TNR2	149	149	165	Fix
198	TNR3	95	95	111	Fix
199	TNR4	63	63	63	Fix
200	TNR5	47	47	47	Fix
201	TNR6	31	31	31	Fix
202					Fix
203					Fix
204					Fix
205	HPLL timing	156	156	156	Fix
206	SECAM MODE INITIAL DATA	76	76	76	Fix
207	SECAM MODE INITIAL DATA	64	64	64	Fix

230	EEP_GAMMA_480I	2	2	2	Fix
231	EEP_DPIC_LEVEL_480I	2	2	2	Fix
232	DC_TRANS_480I	3	3	3	Fix
233	EEP_GAMMA_576I	2	2	2	Fix
234	EEP_DPIC_LEVEL_576I	2	2	2	Fix
235	DC_TRANS_576I	3	3	3	Fix

240	EEP_480i H_EW Offset	0	0	0	Fix
241	EEP_480i H_Shift Offset	0	0	0	Fix
242	EEP_576i H_EW Offset	-2	-2	-2	Fix
243	EEP_576i H_Shift Offset	-5	-5	-5	Fix
244	ZOOM2 PARA	2	2	2	Fix

251	PL preventive measure caused by FBT high pressure	250	250	250	Fix
252	PL preventive measure caused by FBT high pressure	40	40	40	Fix
253	PL preventive measure caused by FBT high pressure	150	150	150	Fix

19. Option

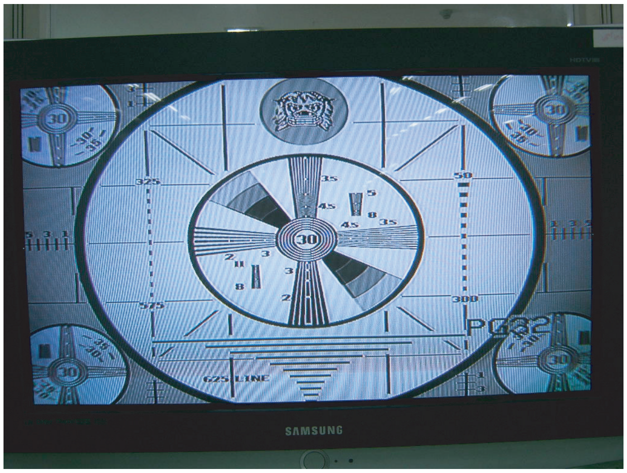
No	Option Byte	CIS 29"	CIS 32"	Asia 29"	Middle East 29"	Remark
		Data	Data	Data	Data	
1	CRT	4:3	Wide	4:3	4:3	depending on the CRT
2	OSD Group	CIS	CIS	East Asia	Arab	
3	OSD Language	CIS	CIS	English	Arab	
4	AV Jack	SCART	SCART	RCA	RCA	depending on the CRT
5	DTV	Off	Off	On	On	On: 2T PIP LNA All model Off: 1Tuner/No PIP
6	PIP	2-Tuner	Off	2-Tuner	2-Tuner	
7	LNA	On	On	On	On	
8	Search LNA	On	On	On	On	
9	Sound	SRS	SRS	SRS	SRS	
10	carrier mute	Off	Off	Off	Off	
11	High Deviation	Off	Off	Off	Off	
12	TTX Group	Russian	Russian	West Europe	Arabic	TTX Language Group
13	TTX List	Off	Off	Off	Off	On : Australia,Newzealand Off: Europe,CIS,Asia
14	TTX On/Off	On	On	On	On	
15	AGC	Off	Off	Off	Off	
16	Tilt	On	On	On	On	
17	Hotel Mode	Off	Off	Off	Off	

3-4 Service Adjustment

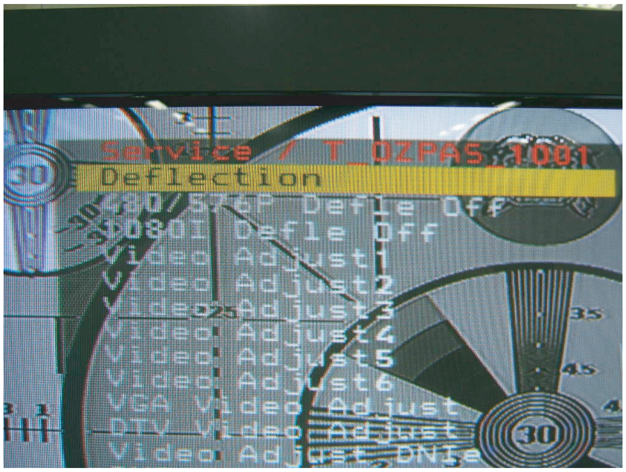
3-4-1 Adjusting the Picture Size

■ Since the S62A chassis has the deflection settings data within the Factory Data, the picture size has to be adjusted when replacing the System Board or the Deflection Board, according to the following procedures.

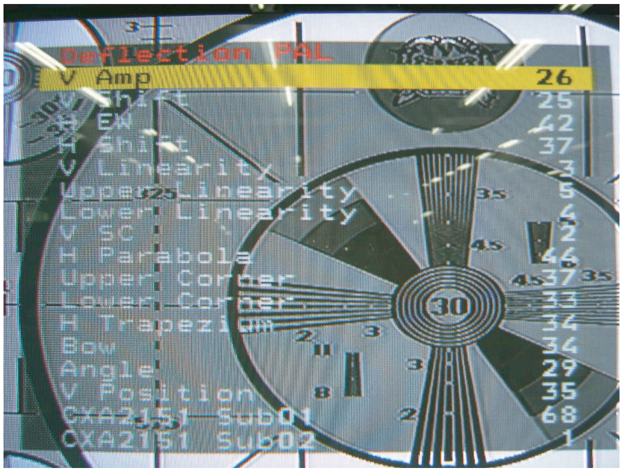
① Display the Lion pattern.


SAMSUNG
PG32
625 LINE

② Press "Info → Menu → Mute → Power On" using the remote control and enter Factory Mode.

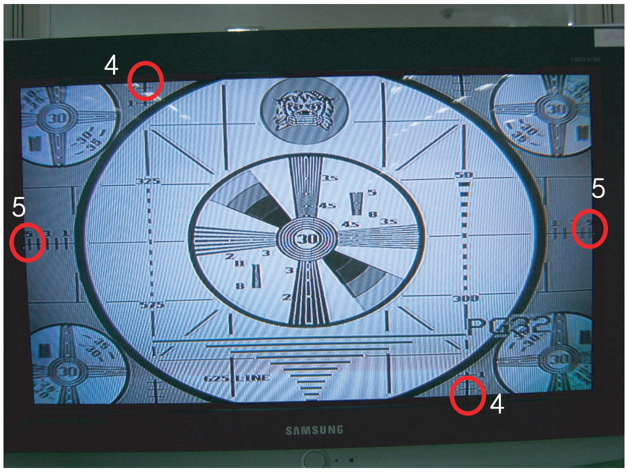

Service / T_DZPAS 1001
Deflection
480/576P Defle Off
1080I Defle Off
Video Adjust1
Video Adjust2
Video Adjust3
Video Adjust4
Video Adjust5
Video Adjust6
VGA Video Adjust
DTV Video Adjust
Video Adjust DNIe

③ Enter Deflection Mode.



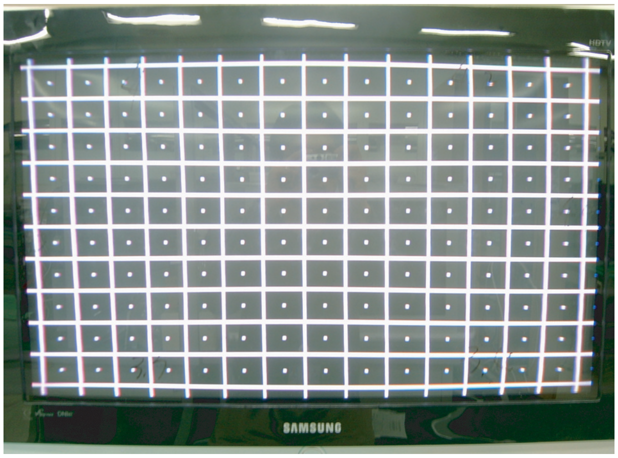
Deflection PAL
V Amp 26
V Shift 25
H EW 42
H Shift 37
V Linearity 3
Upper Linearity 5
Lower Linearity 6
V SC 2
H Parabola 46
Upper Corner 37
Lower Corner 33
H Trapezium 34
Bow 34
Angle 29
V Position 35
CXA2151 Sub01 68
CXA2151 Sub02 1

④ Adjust the V-AMP, V-SHIFT, H-AMP and H-SHIFT items so that the width becomes 5 and the height becomes 4.


4
5
5
4
PG32
625 LINE
SAMSUNG

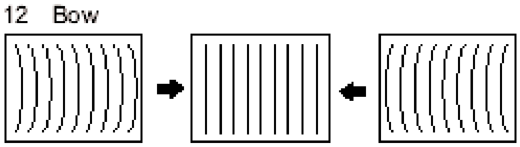
3-4-2 Adjusting the Picture Straight Lines

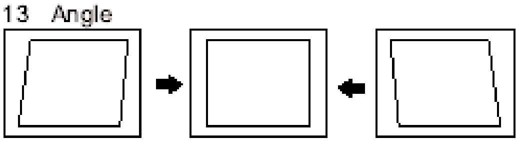
① Display the Cross Hatch pattern.



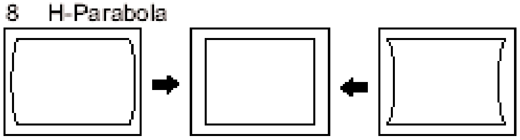
② Adjust settings other than V-AMP, V-SHIFT, H-AMP and H-SHIFT so that straight lines are displayed without curves.

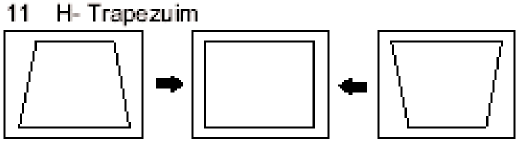
③ Adjust BOW and the Angle settings so that the center line becomes a straight line.



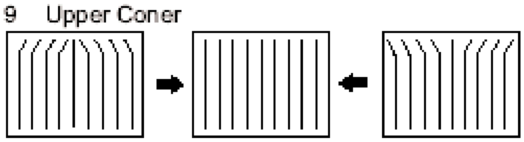


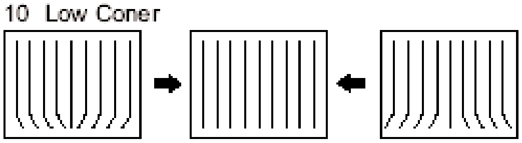
④ Adjust the H-Parabola and H-Trapezium settings so that the left and right lines become straight.


8 H-Parabola

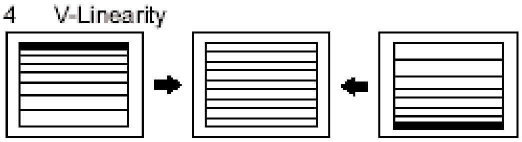

11 H- Trapezuim

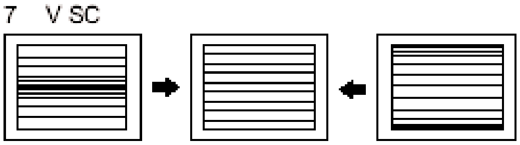
⑤ Adjust the Upper Corner and the Low Corner settings so that the end of the lines become straight.


9 Upper Coner


10 Low Coner

⑥ Adjust the V-Linearity and V-SC settings so that the intervals of the horizontal lines become uniform.


4 V-Linearity

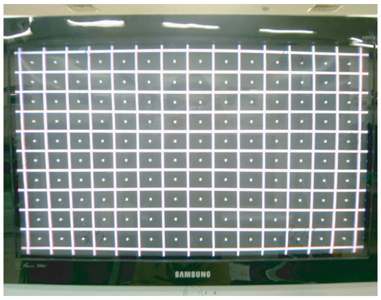


⑦ When the adjustments are complete, display the Lion pattern and check that the picture size has not been changed.
If there is no change, finish the adjustments.

3-5 Replacements & Calibration

3-5-1 Adjusting the Focus

■ Since the S62A chassis has a built-in dynamic focus circuit, take care when adjusting the focus. When the CRT PCB, FBT or CRT has been replaced, the focus has to be adjusted according to the following procedures.

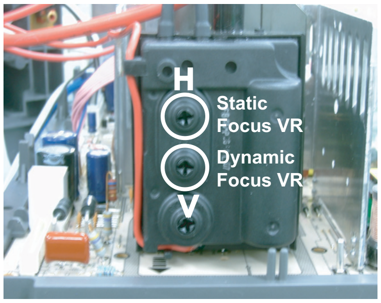


1. Display the CROSS Hatch pattern.

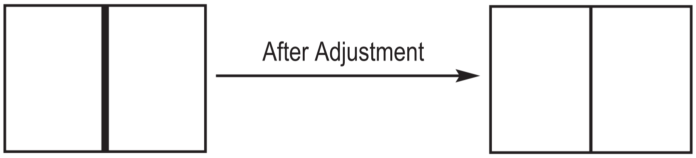
2. Set the Screen Adjustment to "View as Standard".

3. Turn the Static Focus VR clockwise to the maximum position.
   (End of clockwise direction)

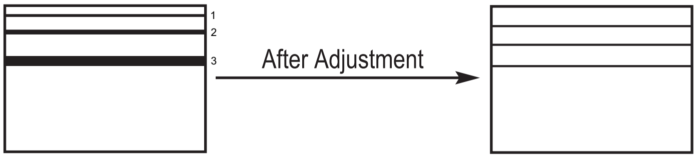
4. Turn the Dynamic Focus VR counter clockwise to the maximum position.
   (End of counter clockwise direction)



5. Slowly turn the Static Focus VR counter clockwise so that the center vertical line is the most clearly displayed.



6. Slowly turn the Dynamic Focus VR clockwise so that the 2nd line is the most clearly displayed.



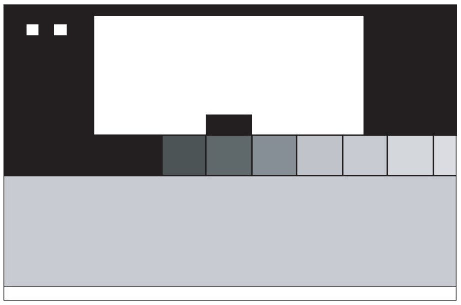
7. Check the entire screen focus and repeat steps 3 to 6, if necessary.

3-5-2 Adjusting the Screen Voltage

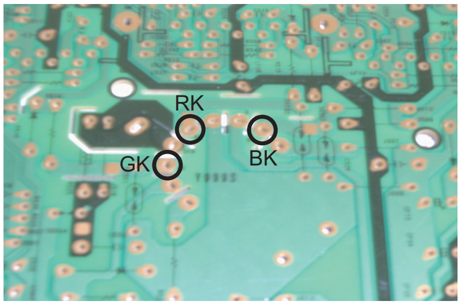
1. Select "Info → Menu → Mute → Power On" to enter Service Mode.

2. Initialize all settings to the values appropriate to the corresponding model.

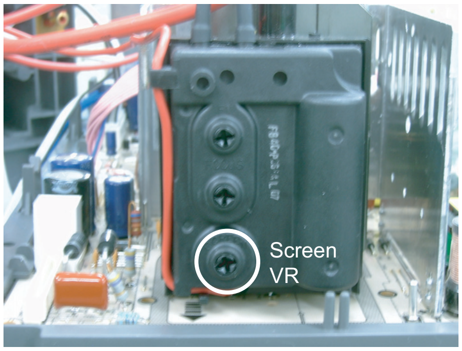
3. Display the Toshiba pattern.

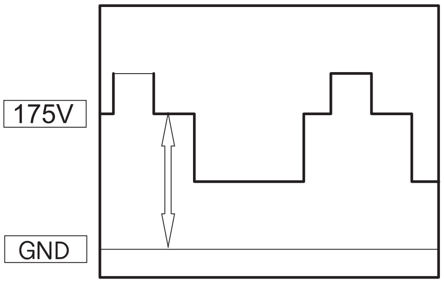


4. Using an Oscilloscope, measure the size of RK, BK and GK to the Pedestal Level.



5. Adjust the Screen VR of FEB so that the highest point of the Pedestal Level is 175V.





Adjust Method the Screen Voltage for Toshiba Pattern by Oscilloscope

※ Screen Voltage Measurement Data

No	Item	Data	Required Adjustment
1	Screen Voltage	The Highest Voltage among RK, GK and BK 175Vp-p-3V	Screen Voltage

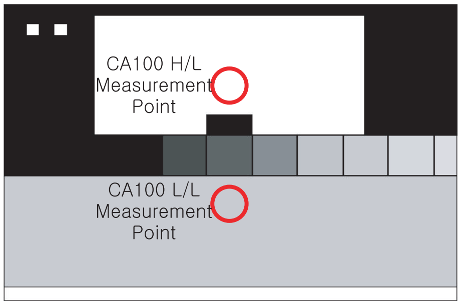
3-5-3 Adjusting the White Balance

1. Initialize all settings to the values appropriate to the corresponding model.

2. Select "Info → Menu → Mute → Power On" to enter Service Mode.

3. Initialize all settings to the values appropriate to the corresponding model.

4. Display the Toshiba pattern and adjust the White Balance using CA100 with the coordinates of the corresponding model.



[CA100]

5. Enter Video Adjust1 of Service Mode. Adjust Low/Light.
   - Adjust Sub Bright to set Y.
   - Adjust B Cutoff to set y.
   - Adjust R Cutoff to set x.

6. Enter Video Adjust1 of Service Mode. Adjust High/Light.
   - Adjust Sub Contrast to set Y.
   - Adjust B Drive to set y.
   - Adjust R Drive to set x.

7. Check Low/Light and readjust it if its value has been changed.

8. If you have readjusted Low/Light, readjust High/Light until the two values are identical to the coordinates of the corresponding model.

※ White Balance Standard Data

No	Item	Data	Required Adjustment
1	White Balance	x:282± 3 / y:290± 3 / 40± 3(High) x:282± 3 / y:290± 3 / 1.2± 0.2(Low)	White Balance (Europe)

3-5-4 Check List for the Screen Voltage and White Balance Adjustment

1. The Screen Voltage and White Balance are connected each other, and both of them have to be configured to the correct values.

2. Adjust the White Balance after the Screen Voltage was adjusted, and check if the Screen Voltage is normal after adjusting the White Balance.

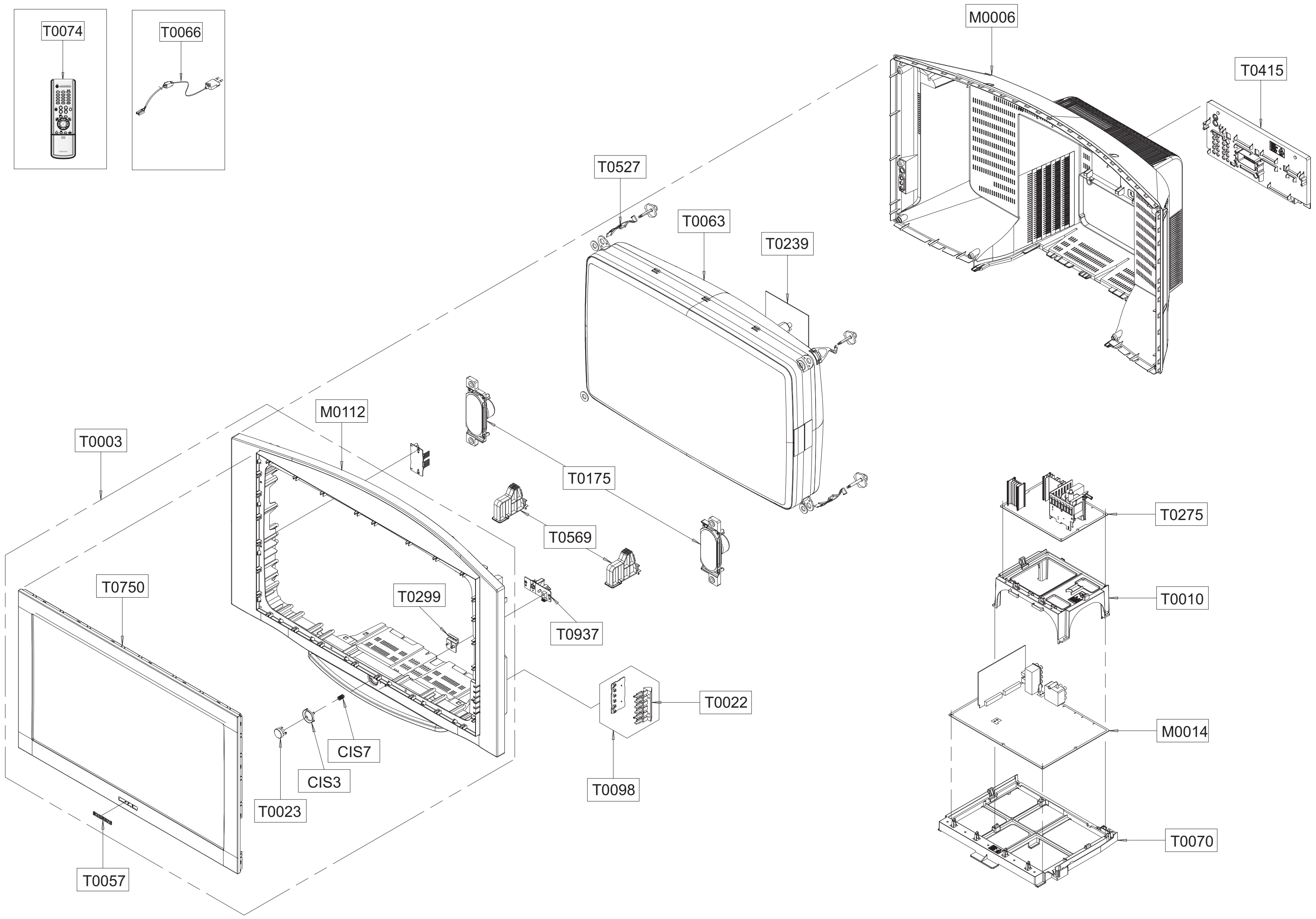
3. If the White Balance is readjusted, check the Screen Voltage again.

4. When the adjustment is finished, check the following checklist.
   - If there is a spot on the screen when turning the TV set off/on, adjust the Screen Voltage again.
   - If there is a ghost line on the screen, adjust the Screen Voltage again.

4. Exploded View & Part List

4-1 WS32Z306VBXXEU

Yon can search for the updated part code through ITSELF web site.
URL:http://itself.sec.samsung.co.kr



Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CIS3	BP64-00331B	DECORATION-POWER	PJTV,ABS,HB,GR503,SVM30	1	S.N.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0006	AA63-00961A	COVER-REAR	32Z30(SAMEX),HIPS,V0,BK500	1	S,A	
M0014	AA94-15276A	ASSY PCB MAIN	WS32Z30,S62B	1	S,A	
M0112	AA63-00958D	COVER-FRONT	32Z30,HIPS,HB,GR503,SV012P+B	1	S.N.A	
T0003	AA96-02867N	ASSY COVER P-FRONT	32Z30,CIS,HIPS HB,GR5	1	S,A	
T0010	AA61-01425A	HOLDER-SUB PCB	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
T0022	AA64-01201N	KNOB CONTROL	32Z30,ABS,HB,BLK	1	S.N.A	
T0023	BP64-00326A	KNOB POWER	43T9,ABS,HB,BLK,SVM3012	1	S.N.A	
T0057	AA64-01062B	BADGE-BRAND	ALL,AL,T1.5,10.6,L65,BLK.SIL	1	S,A	
T0063	AA03-00418A	CRT COLOR	W76QFV891X002,+380,0.28,11.1,0	1	S,A	
T0066	AA96-01128C	ASSY POWER CORD	DP,AA39-00290A,EP3, UK,H	1	S,A	
T0070	AA61-01424A	HOLDER-CHASSIS	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
T0074	AA59-00370B	REMOCON	SAMSUNG,TM79,175*44*23,SAM-	1	S,A	
T0098	AA94-15114A	ASSY PCB MISC-CONTROL	CT-32Z30HD,CORE	1	S,A	
T0175	AA96-02859A	ASSY SPEAKER P	8ohm,Core,Oz,10W,800/500m	1	S,A	
T0239	AA96-03673A	ASSY PCB P-CRT	AA94-15502A	1	S.N.A	
T0275	AA94-15375A	ASSY PCB MISC-DEFLECTION	WS32Z30,S62B	1	S,A	
T0299	AA64-04191A	WINDOW-RMC LED	32Z30,PC CLEAR	1	S.N.A	
T0415	AA65-00055A	TERMINAL-BOARD	32Z30,HIPS V0,BLK,SHINE,A	1	S.N.A	
T0527	AA61-01373C	HOLDER-D COIL	NYLON,W31MM,WHT,SEH	4	S.N.A	
T0569	AA61-01433A	SUPPORT-CRT	32Z30(SLIM),HIPS,T2.0,GR503,	2	S,A	
T0750	AA63-00962M	COVER-MASK	32Z30 S62B,HIPS,HB,BLK,BKM-13	1	S,A	
T0937	AA91-09233A	ASSY MISC-MASTER BOARD	32Z309,S62A	1	S.N.A	

Yon can search for the updated part code through ITSELF web site.
URL:http://itself.sec.samsung.co.kr

5. Electrical Part List

5-1 WS32Z306VBXXEU

ASSY CHASSIS

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0017	AA91-09381A	ASSY CHASSIS	WS32Z306VBXXEC,S62B,SHINE	1	S.N.A	
M0014	AA94-15276A	ASSY PCB MAIN	WS32Z30,S62B	1	S.A	
⚠ PC801S	0604-001038	PHOTO-COUPLER	TR,130-260%,200mW,DIP-4,ST	1	S.A	
IC112	1103-001177	IC-EEPROM	24WC16,2Kx8,DIP,8P,9.2x6mm,1.8	1	S.A	
DU410	1201-000191	IC-OP AMP	4558,DIP,8P,300MIL,DUAL,20V/mV	1	S.A	
T0087	1203-001225	IC-POSI.FIXED REG.	78R09,TO-220,4P,-,PLA	1	S.A	
P803T	1404-001154	THERMISTOR-PTC	4.5OHM,+30%/-20%,220V,270	1	S.A	
T0900	1404-001195	THERMISTOR-NTC	5.1ohm,15%,2900,27mW/C,BK	1	S.A	
R601	2009-000021	R-METAL PLATE	0.33ohm,10%,5W,CL,TP,5x14x	1	S.A	
R602	2009-000021	R-METAL PLATE	0.33ohm,10%,5W,CL,TP,5x14x	1	S.A	
R811	2009-001011	R-METAL PLATE	0.18ohm,10%,5W,CL,TP,5x14x	1	S.A	
⚠ CY802S	2201-000963	C-CERAMIC,DISC	1NF,20%,400V,Y5U,TP,9.5X6	1	S.A	
⚠ CY801S	2201-000987	C-CERAMIC,DISC	2.2NF,20%,400V,Y5U,BK,12.	1	S.A	
C806	2306-000112	C-FILM,LEAD-PPF	100nF,20%,250V,BK,-,15mm	1	S.A	
⚠ CX801S	2306-000318	C-FILM,LEAD-PPF	220NF,20%,250V,BK,-,22.5	1	S.A	
C802	2401-002287	C-AL	470uF,20%,200V,WT,BK,25x40,10	1	S.A	
C803	2401-003025	C-AL	330uF,20%,400V,GP,BK,30x40,10	1	S.A	
⚠ RL801S	3501-001053	RELAY-POWER	5VDC,530MW,10000MA,1FORMA,15	1	S.A	
FD802	3601-000414	FUSE-CARTRIDGE	250V,5A,SLOW-BLOW,GLASS,5	1	S.A	
CN906	3711-003043	CONNECTOR-HEADER	BOX,4P,1R,2.5MM,STRAIGH	1	S.A	
CN906	3711-003241	CONNECTOR-HEADER	BOX,14P,1R,2.5MM,STRAIG	1	S.A	
JA701	3722-001884	JACK-SCART	42P,-,SNPB,BLK,-	1	S.A	
⚠ T801S	AA26-00200B	TRANS SWITCHING	53B135-SC,WS32A20HE,AC16	1	S.A	
⚠ PFC01S	AA27-00269A	COIL CHOKE-PFC	35MH,CPTTV,35MH,10%,2.0OH	1	S.A	
⚠ LX803S	AA29-30002N	FILTER LINE NOISE	-,16MH,1.5A,AC100~260V	1	S.A	
CN802	AA60-40012G	PIN-GT	3P,2.36PI,10/5mm,NYLON66,LOCKI	1	S.N.A	
T0523	AA95-03423A	ASSY SUB PCB-F/BOX	WS32Z30,S62B	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.01	S.N.A	
DM01	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
DC51	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
DC41	2301-001664	C-FILM,LEAD-OTHER	100nF,3%,50V,TP,20x16x	1	S.A	
L906	2701-000215	INDUCTOR-AXIAL	8.2UH,10%,2534	1	S.A	
T0122	2802-001177	RESONATOR-CERAMIC	2.696MHZ,0.4%,BK,10X4.	1	S.A	
CN906	3711-000570	CONNECTOR-HEADER	BOX,10P,1R,2.5MM,ANGLE,	1	S.A	
CN906	3711-001031	CONNECTOR-HEADER	BOX,6P,1R,2.5MM,ANGLE,S	1	S.A	
CN906	3711-003245	CONNECTOR-HEADER	BOX,14P,1R,2.5MM,ANGLE,	1	S.A	
CN906	3711-003495	CONNECTOR-HEADER	NOWALL,34P,2R,2.54MM,AN	1	S.A	
CN906	3711-003495	CONNECTOR-HEADER	NOWALL,34P,2R,2.54MM,AN	1	S.A	
CN906	3711-004067	CONNECTOR-HEADER	BOX,4P,1R,2mm,ANGLE,SN	1	S.A	
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTE,T0.3,-,-,-,-	1	S.N.A	
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTE,T0.3,-,-,-,-	1	S.N.A	
M0018	AA97-15615A	ASSY MICOM	,S61A,ST M27W201,T_NGTPAS_102	1	S.A	
IC902	1102-001133	IC-EPROM	M27W201-80B6,256KX8BIT,DIP,32P,	1	S.A	
	AA97-15985A	ASSY SMD-F/BOX	WS32Z30,S62B	1	S.N.A	
D202	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
D902	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
D903	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
D904	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD01	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD02	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD08	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD09	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD10	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD13	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD14	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD15	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD16	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD17	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD18	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD19	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
MD02	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DD20	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500MW,LL-	1	S.A	
MD01	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500MW,LL-	1	S.A	
ZM03	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500MW,LL-	1	S.A	
DD11	0403-000746	DIODE-ZENER	RLZ3.9B,3.89-4.16V,500MW,LL-	1	S.A	
DD03	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD04	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD05	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD06	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD07	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD21	0403-001284	DIODE-ZENER	RLZ3.3A,3.16-3.38V,500MW,LL-	1	S.A	
DD22	0403-001284	DIODE-ZENER	RLZ3.3A,3.16-3.38V,500MW,LL-	1	S.A	
DQ01	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DQ06	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DQ07	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DQ08	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DQ11	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
EQ01	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
EQ03	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
EQ06	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
Q901	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
Q902	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
Q907	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
Q908	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DQ02	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ03	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ04	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ05	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ10	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
EQ02	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ09	0501-000727	TR-SMALL SIGNAL	BC848C,NPN,310mW,SOT-23,	1	S.A	
Q409	0505-001679	FET-SILICON	FDC6301N,N,25V,0.22A,5OHM,0.	1	S.A	
IC104	0801-000662	IC-CMOS LOGIC	74HC123,MULTIVIBATOR,SOP,1	1	S.A	
IC06	1203-001211	IC-VOL. DETECTOR	7027,SOT-89,3P,-,PLASTI	1	S.A	
ICM04	1203-001814	IC-VOL. DETECTOR	7025,SOT-89,4P,98MIL,PL	1	S.A	
T0087	1203-002186	IC-POSI.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
T0087	1203-002186	IC-POSI.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
T0087	1203-002302	IC-POSI.FIXED REG.	78RM33D,D-PAK,3P,-,PL	1	S.A	
T0087	1203-002302	IC-POSI.FIXED REG.	78RM33D,D-PAK,3P,-,PL	1	S.A	
ICM01	1204-001912	IC-DECODER	SDA5550M,P-MQFP,100P,-,PLASTI	1	S.A	
IC01	1204-001948	IC-VIDEO DECODER	VSP9402A,MQFP,80P,14X14	1	S.A	
IC118	1204-001989	IC-VIDEO PROCESS	CXA2165Q,QFP,64P,20X14M	1	S.A	
ICM07	1204-002462	IC-AUDIO PROCESSOR	STV8237,TQFP,80P,14x1	1	S.A	
DR23	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
DR67	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR68	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR69	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR70	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
ER41	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
MR19	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
MR20	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RM02	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RM04	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR30	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR31	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR32	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR33	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR34	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR40	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
DR41	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
R926	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
DR03	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR04	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR05	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR06	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR09	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR11	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR16	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR17	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR18	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR19	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR21	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR30	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR35	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR36	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR49	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR50	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DR51	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR58	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR59	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR60	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR65	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR71	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR72	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR73	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR74	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR88	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER01	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER02	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER03	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER04	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER05	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER13	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER16	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER19	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER20	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER23	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER24	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER35	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER36	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER37	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER40	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
MR10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
MR11	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R905	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R914	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R940	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R941	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R942	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R947	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R948	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R951	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R962	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM01	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM08	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM09	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM11	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM12	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
SR35	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
MR01	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR02	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR08	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR09	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
DR25	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
ER07	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR04	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR05	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR06	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR07	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR17	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR18	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R910	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R919	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R920	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R923	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
SR37	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
DR43	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR44	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR45	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR46	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
ER38	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
ER46	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R902	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R916	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R921	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R928	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R930	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RM07	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR86	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
DR87	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
R936	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
DR32	2007-000081	R-CHIP	2.7Kohm,5%,1/10W,TP,1608	1	S.A	
DR33	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DR34	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
DR37	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
DR63	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R901	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R903	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R904	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R906	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R908	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R924	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R927	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R938	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R971	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R972	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
DR13	2007-000086	R-CHIP	5.6Kohm,5%,1/10W,TP,1608	1	S.A	
DR14	2007-000086	R-CHIP	5.6Kohm,5%,1/10W,TP,1608	1	S.A	
DR66	2007-000088	R-CHIP	7.5Kohm,5%,1/10W,TP,1608	1	S.A	
R913	2007-000088	R-CHIP	7.5Kohm,5%,1/10W,TP,1608	1	S.A	
DR47	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR61	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR62	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR64	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR80	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
ER09	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
MR16	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R912	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R932	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R935	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R949	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R964	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R965	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R966	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R968	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R970	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
RM03	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR24	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	1	S.A	
ER08	2007-000093	R-CHIP	20Kohm,5%,1/10W,TP,1608	1	S.A	
DR82	2007-000094	R-CHIP	22Kohm,5%,1/10W,TP,1608	1	S.A	
R953	2007-000094	R-CHIP	22Kohm,5%,1/10W,TP,1608	1	S.A	
DR81	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
ER06	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
R960	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
MR12	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
DR22	2007-000107	R-CHIP	470Kohm,5%,1/10W,TP,1608	1	S.A	
DR27	2007-000107	R-CHIP	470Kohm,5%,1/10W,TP,1608	1	S.A	
DR29	2007-000118	R-CHIP	390ohm,5%,1/10W,TP,1608	1	S.A	
MR14	2007-000119	R-CHIP	560ohm,5%,1/10W,TP,1608	1	S.A	
R922	2007-000120	R-CHIP	680ohm,5%,1/10W,TP,1608	1	S.A	
DR31	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
DR38	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
DR39	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
R945	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R946	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R952	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R958	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R967	2007-000130	R-CHIP	39Kohm,5%,1/10W,TP,1608	1	S.A	
R969	2007-000130	R-CHIP	39Kohm,5%,1/10W,TP,1608	1	S.A	
R961	2007-000134	R-CHIP	33Kohm,5%,1/10W,TP,1608	1	S.A	
DR52	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR53	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR54	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR55	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR56	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR57	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
SR36	2007-000259	R-CHIP	1.6Kohm,5%,1/10W,TP,1608	1	S.A	
ER11	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
ER12	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
DR08	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
DR28	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
R911	2007-000729	R-CHIP	300ohm,5%,1/10W,TP,1608	1	S.A	
DR15	2007-000869	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	S.A	
ER25	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER26	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER27	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER42	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER47	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER48	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER10	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
ER15	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER21	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER22	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER39	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER43	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER44	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER45	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
MC02	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC05	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC06	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC08	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC09	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC10	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC12	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC15	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC19	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC21	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC24	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC26	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC31	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC32	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC39	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC41	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC42	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC43	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC45	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC46	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
C901	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
C925	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM03	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM04	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM05	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM06	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM07	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM08	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM09	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM10	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM11	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM20	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM25	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM27	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM28	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC03	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC05	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC10	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC11	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC14	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC15	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC16	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC17	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC18	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC19	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC21	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC25	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC26	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC27	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC28	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC29	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC37	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC38	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC44	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC08	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC09	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC10	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC13	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC14	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC15	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC37	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC38	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC39	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
SC49	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
MC27	2203-000236	C-CERAMIC,CHIP	0.1nF,5%,50V,NP0,TP,1608	1	S.A	
CM15	2203-000257	C-CERAMIC,CHIP	10nF,10%,50V,X7R,TP,1608	1	S.A	
MC28	2203-000257	C-CERAMIC,CHIP	10nF,10%,50V,X7R,TP,1608	1	S.A	
C906	2203-000357	C-CER,CHIP	0.15NF,5%,50V,C0G,TP,1608	1	S.A	
C905	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC01	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DC02	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC40	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC07	2203-000491	C-CERAMIC,CHIP	2.2nF,10%,50V,X7R,TP,1608	1	S.A	
SC47	2203-000491	C-CERAMIC,CHIP	2.2nF,10%,50V,X7R,TP,1608	1	S.A	
SC48	2203-000491	C-CERAMIC,CHIP	2.2nF,10%,50V,X7R,TP,1608	1	S.A	
C926	2203-000575	C-CER,CHIP	220nF,10%,25V,X7R,2012	1	S.A	
DC32	2203-000575	C-CER,CHIP	220nF,10%,25V,X7R,2012	1	S.A	
DC45	2203-000575	C-CER,CHIP	220nF,10%,25V,X7R,2012	1	S.A	
EC34	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
EC35	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
MC22	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
MC23	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
EC28	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC29	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC30	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC31	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC58	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC70	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC71	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC72	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
ED66	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC25	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC26	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC27	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC75	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
MC11	2203-000798	C-CER,CHIP	33nF,10%,16V,X7R,TP,1608,-	1	S.A	
MC16	2203-000798	C-CER,CHIP	33nF,10%,16V,X7R,TP,1608,-	1	S.A	
MC17	2203-000802	C-CER,CHIP	33nF,10%,50V,X7R,2012	1	S.A	
MC18	2203-000802	C-CER,CHIP	33nF,10%,50V,X7R,2012	1	S.A	
DC34	2203-000888	C-CER,CHIP	4.7nF,10%,50V,X7R,TP,1608	1	S.A	
DC35	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC17	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC18	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC19	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC20	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC21	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC22	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC23	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
C903	2203-001103	C-CER,CHIP	6.8nF,10%,50V,X7R,TP,1608,-	1	S.A	
CM01	2203-001628	C-CER,CHIP	0.03nF,5%,50V,NP0,1608	1	S.A	
CM02	2203-001628	C-CER,CHIP	0.03nF,5%,50V,NP0,1608	1	S.A	
DC08	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	
DC20	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	
DC22	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	
DC31	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	
DC33	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	
EC01	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC02	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC03	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC04	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC11	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC12	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC16	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC24	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC32	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC33	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC36	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC40	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC41	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC43	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC46	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC52	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC53	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC54	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC55	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC56	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC74	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
MC25	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
MC29	2203-006170	C-CER,CHIP	220NF,10%,16V,X7R,TP,1608	1	S.A	
DC09	2402-000170	C-AL,SMD	1uF,20%,50V,GP,TP,4.3x4.3x5.4,	1	S.A	
C912	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.	1	S.A	
CM23	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.	1	S.A	
DC06	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.	1	S.A	
DC23	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.	1	S.A	
C904	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
CM21	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC39	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC52	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC51	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC57	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC60	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC73	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC03	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC04	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC07	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC33	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC34	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC35	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC36	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC37	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC47	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC48	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC49	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC49	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
EC47	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
MC01	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
MC30	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
MC40	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
MC44	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
MC13	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
MC14	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
MC38	2402-001033	C-AL,SMD	220uF,20%,16V,GP,TP,8.3x8.3x10	1	S.A	
CM12	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
CM24	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
CM26	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
DC04	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
DC12	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
DC13	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
DC24	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
DC30	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
DC43	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
EC42	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.	1	S.A	
MC20	2402-001160	C-AL,SMD	330UF,20%,16V,WT,TP,1008	1	S.A	
EC48	2402-001221	C-AL,SMD	470UF,20%,16V,-,TP,A8.3XB8.3XL	1	S.A	
EC49	2402-001221	C-AL,SMD	470UF,20%,16V,-,TP,A8.3XB8.3XL	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-001070	INDUCTOR-SMD	100uH,10%,4532	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
EX01	2801-004004	CRYSTAL-SMD	20.25MHz,20ppm,28-AAN,13pF,2	1	S.A	
XM01	2801-004117	CRYSTAL-SMD	6MHZ,30PPM,28-ABX,20PF,150OH	1	S.A	
MX01	2801-004222	CRYSTAL-SMD	27MHZ,30PPM,28-AAN,14PF,50OH	1	S.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40M	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40M	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40M	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40M	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40M	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40M	1	S.N.A	
G101	3301-001324	CORE-FERRITE BEAD	AB,15OHM,2X1.25X0.9MM,	1	S.N.A	
G101	3301-001324	CORE-FERRITE BEAD	AB,15OHM,2X1.25X0.9MM,	1	S.N.A	
DC36	2203-001034	C-CER,CHIP	5.6nF,10%,50V,X7R,TP,1608,-	1	S.A	
PCB	AA41-01150A	PCB SUB-F/BOX	WS32Z30,FR-4,4,00,1.6,140*	1	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
ICS801	AA96-00111K	ASSY HEAT SINK P	,AA62-30013L,KA78R05	1	S.N.A	
T0087	1203-001006	IC-POSI.FIXED REG.	78R05,TO-220F,4P,-,PL	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
T0066	AA62-30013L	HEAT SINK-ES	-,-,-,-,44/22,-,WHT,-,-,-,-	1	S.N.A	
IC801	AA96-00111W	ASSY HEAT SINK P	SCREWAA62-30013L,KA278R	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.1	S.N.A	
T0087	1203-002587	IC-POSI.FIXED REG.	KA278R05TU,TO-220,4P,	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
T0066	AA62-30013L	HEAT SINK-ES	-,-,-,-,44/22,-,WHT,-,-,-,-	1	S.N.A	
⚠ D801S	AA96-00276C	ASSY HEAT SINK P	-,BRIDGE ,AA62-00052A,G	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.09	S.N.A	
	0402-001399	DIODE-BRIDGE	GSIB660,600V,6A,SIP-4,BK	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
T0063	AA60-30003A	WASHER	T1.5,SBHG-1	1	S.N.A	
T0175	AA62-00052A	HEAT SINK-PS	-,-,-,SILVER,HOLE 18.5mm, 2	1	S.N.A	
IC602	AA96-02371A	ASSY HEAT SINK P	AA62-30181S,SCREW,TDA72	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.2	S.N.A	
T0085	1201-002118	IC-AUDIO AMP	TDA7297SA,ZIP,15P,-,DUAL,32	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
T0607	AA61-01390B	BRACKET-IC	NEO,SPC,T1.0,Sn	1	S.N.A	
T0066	AA62-30181S	HEAT SINK-ES	CS29K10PF,A6063S,T2.0,26.2,	1	S.N.A	
⚠ IC801S	AA96-50371S	ASSY HEAT SINK P	AA62-30181H,SCREW,STR-X	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.2	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
IC063	AA13-00114A	IC HYBRID	EMPEROR,7,-20~+125,FORMING,18A	1	S.A	
T0066	AA62-30181H	HEAT SINK-ES	-,AL6063 EXTR.,2,WHT,50MM,-	1	S.N.A	
M0014	AA97-15899A	ASSY AUTO-MAIN	WS32Z30,S62B	1	S.N.A	
D401	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D402	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D404	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D405	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D410	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D604	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
DZ807	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D801	0401-000006	DIODE-SWITCHING	BAV21,250V,200MA,DO-35,T	1	S.A	
D802	0401-000006	DIODE-SWITCHING	BAV21,250V,200MA,DO-35,T	1	S.A	
D803	0401-000006	DIODE-SWITCHING	BAV21,250V,200MA,DO-35,T	1	S.A	
D406	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D808	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D412	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D805	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
DZ404	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
DZ405	0403-000700	DIODE-ZENER	TZP33A,5%,1000MW,DO-41,TP	1	S.A	
DZ803	0403-000700	DIODE-ZENER	TZP33A,5%,1000MW,DO-41,TP	1	S.A	
DZ402	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ809	0403-000714	DIODE-ZENER	MTZJ3.3B,3.32-3.53V,500MW,DO	1	S.A	
DZ901	0403-000714	DIODE-ZENER	MTZJ3.3B,3.32-3.53V,500MW,DO	1	S.A	
DZ808	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ802	0403-000718	DIODE-ZENER	MTZJ6.8B,6.52-6.79V,500mW,DO	1	S.A	
DZ804	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500MW,DO	1	S.A	
DZ805	0403-001320	DIODE-ZENER	MTZJ6.2C,6.16-6.4V,500MW,DO-	1	S.A	
DZ806	0403-001321	DIODE-ZENER	MTZJ6.8C,6.7-6.97V,500MW,DO-	1	S.A	
DZ403	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500MW,DO	1	S.A	
DZ401	0403-001325	DIODE-ZENER	MTZJ15C,14.42-15.02V,500MW,D	1	S.A	
QH04	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q801	0501-000369	TR-SMALL SIGNAL	KSC2331-Y,NPN,1000mW,TO-	1	S.A	
QH03	0501-000369	TR-SMALL SIGNAL	KSC2331-Y,NPN,1000mW,TO-	1	S.A	
Q101	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q402	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q403	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q404	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q405	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q406	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q603	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q604	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q803	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q804	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q409	0505-000109	FET-SILICON	2N7000,N,60V,200mA,5ohm,400m	1	S.A	
IC012	1203-001217	IC-POSI.ADJUST REG.	431,TO-92,3P,4.58MIL	1	S.A	
⚠ VP801S	1405-000187	VARISTOR	750V,1250A,12.5x7mm,TP	1	S.A	
⚠ VX801S	1405-000187	VARISTOR	750V,1250A,12.5x7mm,TP	1	S.A	
RH09	2001-000008	R-CARBON	15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH14	2001-000008	R-CARBON	15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH15	2001-000008	R-CARBON	15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R418	2001-000028	R-CARBON(S)	100OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R807	2001-000037	R-CARBON(S)	330OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R834	2001-000037	R-CARBON(S)	330OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R802	2001-000076	R-CARBON	47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	1	S.A	
R427	2001-000109	R-CARBON(S)	470OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R403	2001-000221	R-CARBON	1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
RH07	2001-000221	R-CARBON	1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R801	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R821	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R832	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R113	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R450	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R451	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R670	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R671	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R905	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R906	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R907	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R909	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R910	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R911	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R618	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R626	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R627	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R633	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R636	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R822	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R830	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH02	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH03	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH12	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH13	2001-000319	R-CARBON	120KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R621	2001-000331	R-CARBON	12KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R622	2001-000331	R-CARBON	12KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH05	2001-000331	R-CARBON	12KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH10	2001-000331	R-CARBON	12KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R110	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R814	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH06	2001-000515	R-CARBON	220OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R404	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R407	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R812	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R401	2001-000591	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R406	2001-000613	R-CARBON	3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R104	2001-000702	R-CARBON	39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R402	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R447	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R623	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R646	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R647	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R833	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
RS801	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R108	2001-000786	R-CARBON	47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R109	2001-000786	R-CARBON	47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RH08	2001-000812	R-CARBON	5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R105	2001-000864	R-CARBON	56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R111	2001-000869	R-CARBON	56OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R405	2001-000890	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R112	2001-000938	R-CARBON	68OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R420	2001-001070	R-CARBON(S)	120OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RH16	2001-001078	R-CARBON(S)	15KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R419	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R436	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R805	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R817	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
RH04	2001-001093	R-CARBON(S)	2.2KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R810	2001-001097	R-CARBON(S)	2.4KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R455	2001-001111	R-CARBON(S)	240OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R901	2001-001126	R-CARBON(S)	300OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R815	2001-001131	R-CARBON(S)	33KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RH11	2001-001138	R-CARBON(S)	390OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RH17	2001-001143	R-CARBON(S)	4.3KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R424	2001-001144	R-CARBON(S)	4.7KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R425	2001-001144	R-CARBON(S)	4.7KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R415	2001-001148	R-CARBON(S)	430OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R808	2001-001150	R-CARBON(S)	470KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R809	2001-001150	R-CARBON(S)	470KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R803	2001-001153	R-CARBON(S)	47OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
⚠ RX801S	2002-001010	R-COMPOSITION	1.8Mohm,5%,1/2W,AA,TP,3.7x	1	S.A	
⚠ RY801S	2002-001012	R-COMPOSITION	8.2Mohm,5%,1/2W,AA,TP,3.7x	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R823	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R824	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R825	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R445	2003-001025	R-METAL OXIDE(S)	15Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R444	2003-001090	R-METAL OXIDE(S)	10Kohm,5%,2W,AF,TP,4x12	1	S.A	
R423	2004-001371	R-METAL(S)	1.5Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R454	2004-001394	R-METAL(S)	2Kohm,1%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R816	2004-001983	R-METAL(S)	2.49Kohm,1%,1/2W,AA,TP,2.4x6.	1	S.A	
R413	2004-004015	R-METAL(S)	9.1Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R311	2008-001018	R-FUSIBLE(S)	0.47ohm,10%,2W,AF,TP,3.9x10	1	S.A	
R452	2008-001137	R-FUSIBLE(S)	3.3ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R453	2009-001109	R-TEMPERATURE	240ohm,5%,1/4W,AA,TP,2.3x6	1	S.A	
R456	2009-001109	R-TEMPERATURE	240ohm,5%,1/4W,AA,TP,2.3x6	1	S.A	
C824	2201-000332	C-CERAMIC,DISC	2.2NF,20%,250V,Y5U,TP,9X4	1	S.A	
C826	2201-000332	C-CERAMIC,DISC	2.2NF,20%,250V,Y5U,TP,9X4	1	S.A	
C819	2201-000374	C-CERAMIC,DISC	0.22NF,5%,50V,C0G,TP,10.5	1	S.A	
C815	2201-000406	C-CERAMIC,DISC	0.27NF,10%,2KV,Y5P,TP,6.3	1	S.A	
C813	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C816	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C822	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C834	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C109	2202-000121	C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP	1	S.A	
C110	2202-000121	C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP	1	S.A	
C903	2202-000127	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V	1	S.A	
C615	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C616	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C619	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C621	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C628	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C629	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C630	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C634	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C901	2202-000632	C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP	1	S.A	
C829	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C809	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C820	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C401	2301-000247	C-FILM,LEAD-PEF	33nF,5%,50V,TP,8.1x4.5x1	1	S.A	
C821	2301-000356	C-FILM,LEAD-PEF	47nF,5%,50V,TP,7.5x4.0x6	1	S.A	
C439	2301-001385	C-FILM,LEAD-PPF	30nF,5%,630V,TP,20x15.5x	1	S.A	
C807	2301-001435	C-FILM,LEAD-PPF	1.5nF,5%,1.2kV,TP,15x8x1	1	S.A	
C419	2301-001664	C-FILM,LEAD-OTHER	100nF,3%,50V,TP,20x16x	1	S.A	
C406	2303-000163	C-FILM,LEAD-PPF	2.2nF,5%,800V,TP,15x13x8	1	S.A	
C817	2305-000289	C-FILM,LEAD-PEF	220nF,5%,63V,TP,-,5mm	1	S.A	
C407	2305-000412	C-FILM,LEAD-PEF	470nF,5%,63V,TP,-,5mm	1	S.A	
C830	2305-000412	C-FILM,LEAD-PEF	470nF,5%,63V,TP,-,5mm	1	S.A	
C103	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C105	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C417	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C430	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C442	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C648	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C832	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C902	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
C443	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
C828	2401-000050	C-AL	10uF,20%,16V,GP,TP,5x11,2.5	1	S.A	
C825	2401-000142	C-AL	1000uF,20%,16V,WT,TP,10x20,5	1	S.A	
C838	2401-000164	C-AL	1000uF,20%,25V,WT,TP,12.5x20,5	1	S.A	
CH02	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
CH03	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
CH05	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
CH04	2401-000318	C-AL	100uF,20%,25V,LZ,TP,8x11.5,5	1	S.A	
CH06	2401-000318	C-AL	100uF,20%,25V,LZ,TP,8x11.5,5	1	S.A	
C106	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	S.A	
C812	2401-000590	C-AL	1uF,20%,50V,GP,TP,3x5,5	1	S.A	
C116	2401-000913	C-AL	22uF,20%,16V,GP,TP,5x11,5	1	S.A	
C831	2401-000922	C-AL	22uF,20%,16V,GP,TP,5x5,5	1	S.A	
C808	2401-000947	C-AL	22uF,20%,35V,GP,TP,5x11,5	1	S.A	
C833	2401-001496	C-AL	47uF,20%,16V,GP,TP,5x7,5	1	S.A	
C609	2401-001914	C-AL	1uF,20%,50V,BP,TP,5x11,5	1	S.A	
C610	2401-001914	C-AL	1uF,20%,50V,BP,TP,5x11,5	1	S.A	
C642	2401-001998	C-AL	1000uF,20%,25V,GP,TP,10x20,5mm	1	S.A	
C827	2401-002009	C-AL	100uF,20%,16V,GP,TP,6.3x7,5	1	S.A	
C640	2401-002075	C-AL	4.7uF,20%,50V,GP,TP,5x11,5	1	S.A	
C811	2401-002075	C-AL	4.7uF,20%,50V,GP,TP,5x11,5	1	S.A	
C805	2401-002288	C-AL	470uF,20%,25V,WT,TP,10x20,5	1	S.A	
C418	2401-002459	C-AL	220uF,20%,25V,LZ,TP,10x16,5	1	S.A	
C117	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CS810	2401-002594	C-AL	220uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C801	2401-003141	C-AL	2200uF,20%,25V,WT,TP,13x25,5mm	1	S.A	
C814	2401-003141	C-AL	2200uF,20%,25V,WT,TP,13x25,5mm	1	S.A	
C823	2401-003141	C-AL	2200uF,20%,25V,WT,TP,13x25,5mm	1	S.A	
C104	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
C804	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
L901	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
RL101	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
RL102	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L103	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L102	2701-000159	INDUCTOR-AXIAL	22UH,10%,4298	1	S.A	
L611	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L612	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L613	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L614	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L615	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L616	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L617	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L618	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,-,3.5x5,TP,-	1	S.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
⚠ FD802S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A	
⚠ FD803S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A	
⚠ FD804S	3601-001163	FUSE-AXIAL LEAD	125V,7A,-,EPOXY,2.4X7.1M	1	S.A	
⚠ FD801S	3601-001228	FUSE-AXIAL LEAD	125V,10A,FAST-ACTING,EPO	1	S.A	
F801A	3602-000114	FUSE-HOLDER	-,-,30mohm	1	S.A	
F801B	3602-000114	FUSE-HOLDER	-,-,30mohm	1	S.A	
EL204	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL801	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL802	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL803	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL804	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL805	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL806	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL807	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL810	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EY301	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY302	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY303	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY304	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY401	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY402	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY403	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY404	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY601	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY602	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY603	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY604	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY605	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY606	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY607	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY608	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY800	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY801	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY802	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY803	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY804	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY805	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY806	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY807	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY808	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY809	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY810	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY811	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY812	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY813	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY814	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY815	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY816	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY817	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY818	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY819	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY820	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY821	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY822	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY823	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY824	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY825	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY826	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY827	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY828	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY829	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY830	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY831	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY832	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY833	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY834	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY835	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY836	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY837	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY838	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY839	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY840	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY841	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY842	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY843	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY844	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY845	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY846	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY847	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY848	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY849	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY850	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY851	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY852	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY853	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY854	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY855	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY856	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY857	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
R818	2004-001889	R-METAL(S)	127Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R414	2004-004048	R-METAL(S)	3.9Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
C411	2301-000160	C-FILM,LEAD-PEF	12nF,5%,50V,TP,11.0x6.0x	1	S.A	
C607	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	
C608	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	
CH01	2401-000852	C-AL	220uF,20%,35V,GP,TP,8x11.5mm,5	1	S.A	
C405	2401-002289	C-AL	470uF,20%,35V,WT,TP,10x20,5	1	S.A	
R446	2003-002102	R-METAL OXIDE(S)	68Kohm,5%,2W,AF,TP,4x12	1	S.A	
T0077	AA41-01148A	PCB MAIN	WS32Z30,FR-1,1L,C,1.6T,235*330	1	S.N.A	
R421	2001-001106	R-CARBON(S)	220KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R433	2004-001384	R-METAL(S)	150Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R819	2004-001403	R-METAL(S)	7.5Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R411	2004-001987	R-METAL(S)	4.3Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
C416	2305-001037	C-FILM,LEAD-PEF	330nF,5%,63V,TP,7.5x5.5x	1	S.A	
CN906	3711-001038	CONNECTOR-HEADER	BOX,6P,1R,2.5mm,STRAIGH	1	S.A	
HS801	BP96-00006E	ASSY HEAT SINK P	BP62-00001A,SCREW,SLA10	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.4	S.N.A	
H/S	0402-001230	DIODE-RECTIFIER	FMG-G2CS,1000V,3A,DO-41,	1	S.A	
H/S	0402-001596	DIODE-RECTIFIER	SLA1004,200/700,3.5A,-,S	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	3	S.N.A	
T0098	BP62-00001A	HEAT SINK	COMMANDO,A1050P,T2.0,W62.0,H50	1	S.N.A	
CIS3	AA40-00128A	TUNER	TMQZ2-407A,PAL-CW,PAL Hyper,38	1	S.A	
L304	AA26-70001U	TRANS PULSE-PINCUSHION	PIE1726,CORE(K62A	1	S.A	
IC401	1202-000103	IC-VOLTAGE COMP.	393,DIP,8P,300MIL,DUAL,	1	S.A	
IC012	1203-000162	IC-POSI.ADJUST REG.	317,TO-220,3P,-,PLAS	1	S.A	
T0087	1203-001944	IC-POSI.FIXED REG.	78RM33,TO-220,3P,-,PL	1	S.A	
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	
T0275	AA94-15375A	ASSY PCB MISC-DEFLECTION	WS32Z30,S62B	1	S.A	
D401	0402-001295	DIODE-RECTIFIER	GUR460L-5700,600V,4A,DO-	1	S.A	
D402	0402-001295	DIODE-RECTIFIER	GUR460L-5700,600V,4A,DO-	1	S.A	
QH01	0502-000442	TR-POWER	2SC4636RB,NPN,2W,TO-220,ST,10-	1	S.A	
Q409	0505-001116	FET-SILICON	BUZ73A,N,200V,22A,0.6ohm,40W	1	S.A	
Q409	0505-001723	FET-SILICON	FQP630TSTU,N,200V,9A,0.4OHM,	1	S.A	
CH10	2301-001041	C-FILM,LEAD-PPF	15nF,5%,1.6KV,TP,29x14x2	1	S.A	
CH07	2301-001418	C-FILM,LEAD-PPF	1.5nF,5%,2kV,TP,29x7x13.	1	S.A	
⚠ CR407S	2301-001418	C-FILM,LEAD-PPF	1.5nF,5%,2kV,TP,29x7x13.	1	S.A	
C426	2306-000166	C-FILM,LEAD-PPF	220NF,5%,400V,BK,26X17X9	1	S.A	
C434	2306-000255	C-FILM,LEAD-PPF	7.4NF,3%,1.6KV,BK,28.5X1	1	S.A	
C423	2306-001017	C-FILM,LEAD-PPF	680nF,5%,400V,TP,26x14.5	1	S.A	
C422	2401-003920	C-AL	47uF,20%,450V,WT,BK,18x31.5mm,	1	S.A	
SW401	3409-000138	SWITCH-LEVER	30V,200mA,SP3T,NON SHORTING	1	S.A	
SW402	3409-000138	SWITCH-LEVER	30V,200mA,SP3T,NON SHORTING	1	S.A	
CN906	3711-000577	CONNECTOR-HEADER	BOX,10P,1R,2.5MM,STRAIG	1	S.A	
CN906	3711-003241	CONNECTOR-HEADER	BOX,14P,1R,2.5MM,STRAIG	1	S.A	
TH01	AA26-00227A	TRANS-FOCUS	EI-2820,TXP3067WHD,6P,7.0 mH	1	S.A	
⚠ T444S	AA26-00244A	TRANS FBT	FUH29V002,OZ(S62A),2.1mH,U5182	1	S.A	
T401	AA26-50001S	TRANS-HORIZ.DRIVE	-,-,-,6.0mH,-,-,44uH,-	1	S.A	
T0010	AA27-00025A	COIL CHOKE	-,1MH,10%,-,-,BK,-,12X20,14X2	1	S.A	
T0010	AA27-00344A	COIL CHOKE	CORE(K62A),55uH,10%,0.1ohm,17	1	S.A	
CN301	AA60-40012F	PIN-GT	4P,2.36PI,6/12/14mm,NYLON66,LO	1	S.N.A	
IC301	AA96-50381A	ASSY HEAT SINK P	,AA62-30180B,LA7845	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.09	S.N.A	
T0088	1204-000517	IC-VERTICAL DEF.	LA7845,SIP,7P,-,PLASTIC	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
T0066	AA62-30180B	HEAT SINK-ES	-,A6063 EXTR.,2,WHT,70MM,-,	1	S.N.A	
D418	AA96-50390B	ASSY HEAT SINK P	AA62-30181L,SCREW,FMP-3	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.4	S.N.A	
H/S	0402-001296	DIODE-RECTIFIER	FMP-3FU,1.5KV,5A,DO-201A	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	2	S.N.A	
T0105	AA60-30001A	WASHER-PLATE	M3,ID3.5,15X8.5,T1.0,SBHG	1	S.N.A	
T0066	AA62-30181L	HEAT SINK-ES	-,A6063 EXTR,-,-,70/34.5,-,	1	S.N.A	
	AA97-15900A	ASSY AUTO-DEFLECTION	W3S2Z30,S62B	1	S.N.A	
D302	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D403	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D407	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D415	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
DH01	0402-000254	DIODE-RECTIFIER	RGP10J,600V,1A,DO-41,TP	1	S.A	
DH02	0402-000254	DIODE-RECTIFIER	RGP10J,600V,1A,DO-41,TP	1	S.A	
D301	0402-000493	DIODE-RECTIFIER	1R5GU41,400V,1.5A,DO-15L	1	S.A	
D411	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D413	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
DZ302	0403-000699	DIODE-ZENER	TZP27B,27-30.8V,1000MW,DO-41	1	S.A	
DZ306	0403-000700	DIODE-ZENER	TZP33A,5%,1000MW,DO-41,TP	1	S.A	
DZ304	0403-001221	DIODE-ZENER	UZ39BSB,35.36-37.19V,500MW,D	1	S.A	
DZ401	0403-001325	DIODE-ZENER	MTZJ15C,14.42-15.02V,500MW,D	1	S.A	
DZ307	0403-001328	DIODE-ZENER	MTZJ22A,20.15-21.2V,500MW,DO	1	S.A	
DZ303	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500MW,D	1	S.A	
DZ305	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500MW,D	1	S.A	
QH02	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
R303	2001-000016	R-CARBON(S)	1OHM,5%,1/2W,AA,TP,2.4X6.4MM	1	S.A	
R317	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R321	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RH19	2001-000109	R-CARBON(S)	470OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RP407	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R309	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R310	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R444	2001-001054	R-CARBON(S)	1.6KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
RH23	2001-001055	R-CARBON(S)	1.8KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R407	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R412	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R416	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R404	2003-000540	R-METAL OXIDE(S)	1Kohm,5%,2W,AF,TP,4x12m	1	S.A	
R405	2003-000540	R-METAL OXIDE(S)	1Kohm,5%,2W,AF,TP,4x12m	1	S.A	
R426	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R427	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R429	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R445	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R409	2003-000998	R-METAL OXIDE	300ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R410	2003-000998	R-METAL OXIDE	300ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
RH20	2003-002024	R-METAL OXIDE(S)	91Kohm,5%,2W,AF,TP,3.9x	1	S.A	
RH21	2003-002024	R-METAL OXIDE(S)	91Kohm,5%,2W,AF,TP,3.9x	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
RH22	2003-002212	R-METAL OXIDE(S)	75Kohm,5%,2W,AF,TP,3.9X	1	S.A	
R431	2004-000531	R-METAL	20Kohm,1%,1/2W,AA,TP,2.3x6.5mm	1	S.A	
R428	2004-000698	R-METAL	3.3Kohm,1%,1/4W,AA,TP,2.4x6.4m	1	S.A	
⚠ RR430S	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R430	2004-002016	R-METAL(S)	15Kohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R440	2004-002016	R-METAL(S)	15Kohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R316	2004-004046	R-METAL(S)	430Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
RH18	2004-005051	R-METAL(S)	2.2KOHM,1%,1/2W,AA,TP,2.4X6.4	1	S.A	
R425	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R437	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R408	2008-000254	R-FUSIBLE(S)	0.68ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R422	2008-001011	R-FUSIBLE(S)	0.18ohm,10%,2W,AF,TP,3.9x10	1	S.A	
R448	2008-001011	R-FUSIBLE(S)	0.18ohm,10%,2W,AF,TP,3.9x10	1	S.A	
RH28	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R302	2009-001109	R-TEMPERATURE	240ohm,5%,1/4W,AA,TP,2.3x6	1	S.A	
R319	2009-001109	R-TEMPERATURE	240ohm,5%,1/4W,AA,TP,2.3x6	1	S.A	
C303	2201-000132	C-CERAMIC,DISC	0.1NF,10%,500V,Y5P,TP,6.5	1	S.A	
C401	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C403	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C421	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C424	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C420	2301-000213	C-FILM,LEAD-PEF	220nF,5%,250V,TP,21.5x11	1	S.A	
C412	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C445	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C408	2301-001083	C-FILM,LEAD-PPF	27nF,5%,400V,TP,20x7.5x1	1	S.A	
CP401	2301-001171	C-FILM,LEAD-PPF	10nF,5%,400V,TP,20x6.5x1	1	S.A	
C304	2305-000285	C-FILM,LEAD-PEF	220NF,5%,100V,TP,10.5X5.	1	S.A	
C308	2305-000412	C-FILM,LEAD-PEF	470nF,5%,63V,TP,-,5mm	1	S.A	
C301	2305-000480	C-FILM,LEAD-PEF	82nF,5%,100V,TP,-,5mm	1	S.A	
C305	2306-000127	C-FILM,LEAD-PPF	120nF,5%,400V,TP,21.5x17	1	S.A	
C425	2306-000134	C-FILM,LEAD-PPF	150nF,5%,400V,TP,19x17x1	1	S.A	
C302	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C307	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C404	2401-001838	C-AL	470uF,20%,25V,WT,TP,10x16,5	1	S.A	
C402	2401-002231	C-AL	470uF,20%,50V,WT,TP,13x20mm,5m	1	S.A	
C414	2401-003139	C-AL	1000uF,20%,25V,WT,TP,10*20,5mm	1	S.A	
L301	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L401	3301-001660	BEAD-RADIAL	100ohm,3.5x9.0x0.8,50mA,TP,,	1	S.N.A	
L414	3301-001660	BEAD-RADIAL	100ohm,3.5x9.0x0.8,50mA,TP,,	1	S.N.A	
EL401	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL402	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL403	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EL404	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/	1	S.N.A	
EY401	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY402	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY403	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY404	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY405	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY406	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY407	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY408	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY409	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY410	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY411	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY412	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY413	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY414	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY415	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY416	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY417	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY418	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY419	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY420	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY421	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY422	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY423	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY424	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY425	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY426	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY427	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY428	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY429	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY430	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY431	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY432	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY433	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY434	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY435	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY436	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY437	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY438	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY439	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY440	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY441	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY442	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY443	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY444	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY445	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY446	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY447	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY448	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY449	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY450	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY451	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY452	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY453	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY454	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY455	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY456	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY457	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY458	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY459	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY460	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY461	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY462	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY463	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY464	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY465	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY466	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY467	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY468	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
R403	2003-000664	R-METAL OXIDE(S)	33ohm,5%,2W,AF,TP,4x12m	1	S.A	
C447	2301-000160	C-FILM,LEAD-PEF	12nF,5%,50V,TP,11.0x6.0x	1	S.A	
C446	2301-000175	C-FILM,LEAD-PEF	15nF,5%,50V,TP,7.1x3.5x1	1	S.A	
C306	2301-000310	C-FILM,LEAD-PEF	68nF,5%,50V,TP,8.0X8.5X4	1	S.A	
C409	2303-001001	C-FILM,LEAD-PPF	22nF,5%,630V,TP,18x14.5x	1	S.A	
CH08	2401-000852	C-AL	220uF,20%,35V,GP,TP,8x11.5mm,5	1	S.A	
C448	2401-003553	C-AL	100uF,20%,200V,LZ,TP,16x25,7.5	1	S.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
PCB	AA41-01149A	PCB-DEFLECTION	WS32Z30,CEM-1,1,00,1.6,16	1	S.N.A	
R301	2001-001114	R-CARBON(S)	270OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R314	2004-001371	R-METAL(S)	1.5Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R315	2004-001371	R-METAL(S)	1.5Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R424	2008-001058	R-FUSIBLE	0.18ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R308	2001-001197	R-CARBON(S)	910OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R320	2001-001197	R-CARBON(S)	910OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R304	2003-001036	R-METAL OXIDE(S)	3.3ohm,5%,2W,AF,TP,3.9x	1	S.A	
R323	2004-001391	R-METAL(S)	2.2ohm,1%,1/2W,AA,TP,2.4x6.4m	1	S.A	
R324	2004-001391	R-METAL(S)	2.2ohm,1%,1/2W,AA,TP,2.4x6.4m	1	S.A	
J414	3601-000120	FUSE-AXIAL LEAD	125V,2.5A,FAST-ACTING,GL	1	S.A	
CN906	3711-001038	CONNECTOR-HEADER	BOX,6P,1R,2.5mm,STRAIGH	1	S.A	
Q404	BP96-00020P	ASSY HEAT SINK P	AA62-00045A,SCREW,FQP63	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.1	S.N.A	
Q409	0505-001723	FET-SILICON	FQP630TSTU,N,200V,9A,0.4OHM,	1	S.A	
M0081	6003-000335	SCREW-TAPTITE	RH,+,2S,M3,L8,ZPC(YEL),SWR	1	S.N.A	
T0175	AA62-00065A	HEAT SINK-PS	DP,-,-,-,AA62-00045A,-,-,-,	1	S.N.A	
T0296	AA27-00015B	COIL LINEARITY	7.3uH,L81 DR15x18,11.0mm,	1	S.A	
T0010	AA27-00057B	COIL CHOKE	10mH,YL-9N 15x27.5 C:9.5,0.3m	1	S.A	
T0010	AA27-40003H	COIL CHOKE	-,2mH,DR15x20,2UEW0.35,ST	1	S.A	
T0010	AA27-40003P	COIL CHOKE	-,120uH/180uH,Th8x20,USTC 0.1	1	S.A	
CR425	2301-001185	C-FILM,LEAD-PPF	620NF,5%,400V,BK,14.5X26	1	S.A	
R305	2006-000310	R-CEMENT	27ohm,5%,5W,CJ,BK,14x10.5x23.5	1	S.A	
R306	2006-000310	R-CEMENT	27ohm,5%,5W,CJ,BK,14x10.5x23.5	1	S.A	
R313	2006-000310	R-CEMENT	27ohm,5%,5W,CJ,BK,14x10.5x23.5	1	S.A	
R318	2006-000310	R-CEMENT	27ohm,5%,5W,CJ,BK,14x10.5x23.5	1	S.A	
R322	2006-000310	R-CEMENT	27ohm,5%,5W,CJ,BK,14x10.5x23.5	1	S.A	
⚠ CR406S	2303-001015	C-FILM,LEAD-PPF	5.5NF,5%,1.6KV,BK,29X9.5	1	S.A	
⚠ CR405S	2306-000328	C-FILM,LEAD-PPF	6.8NF,5%,1.6KV,BK,28.5X9	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
Q403	AA96-03141C	ASSY HEAT SINK P	BP62-00072A,SCREW,FJL69	1	S.N.A	
	0502-001230	TR-POWER	FJL6920YDTU,N,200000MW,TO-264	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
T0239	BH73-00028B	SILICON/RUBBER-HS	TV ALL,SILICON,26*30*T	1	S.N.A	
T0175	BP62-00072A	HEAT SINK-PS	A1050S,T2.0,80,90,WHITE	1	S.N.A	
	AA91-09479A	ASSY MISC-CONTROL	WS32Z30,S62B	1	S.N.A	
M0081	6003-001023	SCREW-TAPTITE	PWH,+,B,M3,L10,ZPC(YEL),SW	2	S.N.A	
T0022	AA64-01201N	KNOB CONTROL	32Z30,ABS,HB,BLK	1	S.N.A	
T0098	AA94-15114A	ASSY PCB MISC-CONTROL	CT-32Z30HD,CORE	1	S.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.01	S.N.A	
CN906	3711-000058	CONNECTOR-HEADER	BOX,4P,1R,2.5MM,ANGLE,S	1	S.A	
M2893	AA39-00387C	LEAD CONNECTOR	K62A(CORE),UL1007#26,4P,7	1	S.A	
T0057	AA97-15792A	ASSY AUTO-CONTROL	CT-32Z30HD,CORE	1	S.N.A	
DZY03	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
RY03	2001-000007	R-CARBON	3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY05	2001-000009	R-CARBON	20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY02	2001-000577	R-CARBON	2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY04	2001-000878	R-CARBON	6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
RY06	2001-000947	R-CARBON	7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
DZY04	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
LY01	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
LY02	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
SWY07	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY08	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY09	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY10	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY11	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY12	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
PCB	AA41-00619A	PCB-CONTROL(Z7)	CT-29HM8,FR-1,1L,A,1.6T,	1	S.N.A	
T0937	AA91-09233A	ASSY MISC-MASTER BOARD	32Z309,S62A	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	2	S.N.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR	2	S.N.A	
T0523	AA61-00530B	BRACKET-MASTER	25M6,29M6,SECC	1	S.N.A	
T0286	AA94-15180A	ASSY PCB MISC-MASTER S/W	,OZ,S62A	1	S.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.4	S.N.A	
⚠ SW811S	3403-001134	SWITCH-PUSH	250V,5A,DPST,ON-OFF,-	1	S.A	
T0245	AA39-20179A	LEAD CONNECTOR-ASSY	,3(2)P,300MM,YFH800-	1	S.A	
T0023	AA97-05539A	ASSY AUTO-MASTER	WS36Z48D,KS4A,PAL	1	S.N.A	
EY01	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY02	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY03	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY04	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
CIS7	AA41-00521A	PCB-MASTER S/W	CS32Z4,FR-1,1L,A,1.6T,245	1	S.N.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
	AA96-03704A	ASSY PCB P-LED	AA94-15179A	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.01	S.N.A	
LD01	0601-001381	LED	ROUND,RED/GRN,5.0MM,650/563NM	1	S.A	
CN906	3711-001031	CONNECTOR-HEADER	BOX,6P,1R,2.5MM,ANGLE,S	1	S.A	
D0254	AA32-00012A	MODULE REMOCON	ORC-50HF2,38KHZ,940NM,MES	1	S.A	
T0238	AA97-16300A	ASSY AUTO	AA97-15853A	1	S.N.A	
DC01	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
DC02	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
DZC01	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
RC01	2001-000020	R-CARBON(S)	22OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
CC01	2401-002291	C-AL	47uF,20%,16V,GP,TP,6.3x5,5	1	S.A	
PCB	AA41-01123A	PCB-LED	CT-32Z30HD,FR-1,1L,A,1.6T,245X	1	S.N.A	
M2893	BP39-00033C	LEAD CONNECTOR	K62A(CORE),UL1007#26,UL/C	1	S.A	
T0239	AA96-03673A	ASSY PCB P-CRT	AA94-15502A	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.2	S.N.A	
IC012	1203-000165	IC-POSI.ADJUST REG.	78R12,TO-220,4P,-,PL	1	S.A	
R559	2006-001081	R-CEMENT	82ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
R567	2006-001083	R-CEMENT	120ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
R568	2006-001083	R-CEMENT	120ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
C517	2201-000173	C-CERAMIC,DISC	10NF,10%,500V,Y5P,BK,16X4	1	S.A	
C521	2201-000173	C-CERAMIC,DISC	10NF,10%,500V,Y5P,BK,16X4	1	S.A	
C522	2201-000723	C-CERAMIC,DISC	4.7NF,20%,3KV,Y5U,TP,16X5	1	S.A	
⚠ V999S	3704-001194	SOCKET-CRT	8P+SEN,29PI,22.5PI,NI+SN,-	1	S.A	
CN906	3711-000577	CONNECTOR-HEADER	BOX,10P,1R,2.5MM,STRAIG	1	S.A	
CN906	3711-003241	CONNECTOR-HEADER	BOX,14P,1R,2.5MM,STRAIG	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
IC063	AA13-00111A	IC HYBRID	STK396-130,WT-32A20HD,12,105C,	1	S.A	
T0251	AA39-00380B	HARNESS	WS32Z30,UL1185#26,14,400mm,Blu	1	S.A	
T0245	AA39-20010B	LEAD CONNECTOR-ASSY	,1P,500,YFH800-01,S,	1	S.A	
T0603	AA63-10002A	BAND-TIE	NYLON66 V2,L100,NTR	1	S.N.A	
T0100	AA97-16231A	ASSY AUTO-CRT	AA97-15997A	1	S.N.A	
D501	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D503	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D504	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D502	0402-000493	DIODE-RECTIFIER	1R5GU41,400V,1.5A,DO-15L	1	S.A	
D506	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D509	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D510	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D511	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D512	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D513	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D514	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
DF08	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
DZ503	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
DZ504	0403-000698	DIODE-ZENER	TZP12A,5%,1000MW,DO-41,TP	1	S.A	
DZ501	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ502	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
Q501	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q502	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q503	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q504	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q505	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
R531	2001-000009	R-CARBON	20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R560	2001-000052	R-CARBON(S)	3.3KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R518	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R533	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R564	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R536	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R562	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R563	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R501	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R502	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R527	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R530	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R522	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R519	2001-000397	R-CARBON	180KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R540	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R554	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R555	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R556	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R507	2001-000472	R-CARBON	2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R520	2001-000563	R-CARBON	27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R517	2001-000666	R-CARBON	33OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R523	2001-000890	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R508	2001-001026	R-CARBON	910OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R566	2001-001040	R-CARBON(S)	0.68OHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R504	2001-001045	R-CARBON(S)	1.2KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R505	2001-001045	R-CARBON(S)	1.2KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R512	2001-001045	R-CARBON(S)	1.2KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R538	2001-001062	R-CARBON(S)	10MOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R565	2001-001071	R-CARBON(S)	12KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R535	2001-001103	R-CARBON(S)	20KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R561	2001-001126	R-CARBON(S)	300OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RF11	2001-001175	R-CARBON(S)	62OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R537	2001-001196	R-CARBON(S)	9.1KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R525	2002-001006	R-COMPOSITION	4.7KOHM,15%,1/2W,AA,TP,3.7	1	S.A	
R513	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
R514	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
R515	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
RF35	2003-001024	R-METAL OXIDE(S)	150ohm,5%,2W,AF,TP,3.9x	1	S.A	
RF12	2003-001093	R-METAL OXIDE(S)	12Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R506	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R510	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R511	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R542	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R543	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R544	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R532	2004-001893	R-METAL(S)	22Kohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R534	2004-004097	R-METAL	1.6Kohm,2%,1/2W,AA,TP,2.4X6.4m	1	S.A	
R509	2008-000205	R-FUSIBLE(S)	10ohm,5%,1/2W,AF,TP,2.5x6.5	1	S.A	
R528	2008-000205	R-FUSIBLE(S)	10ohm,5%,1/2W,AF,TP,2.5x6.5	1	S.A	
R541	2008-000205	R-FUSIBLE(S)	10ohm,5%,1/2W,AF,TP,2.5x6.5	1	S.A	
RF13	2008-000292	R-FUSIBLE(S)	3.3ohm,5%,2W,AF,TP,3.9x10mm	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CF02	2201-000017	C-CERAMIC,DISC	1NF,10%,50V,Y5P,TP,5X3.5M	1	S.A	
CF05	2201-000019	C-CERAMIC,DISC	10nF,+80-20%,500V,Y5V,TP,	1	S.A	
C501	2201-000193	C-CERAMIC,DISC	0.01NF,0.25PF,50V,C0G,TP,	1	S.A	
C513	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C514	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C515	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
CF07	2201-000604	C-CERAMIC,DISC	0.056NF,+100-0%,500V,SL,T	1	S.A	
CF06	2201-002103	C-CERAMIC,DISC	0.015NF,5%,500V,C0G,TP,6.	1	S.A	
C504	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C505	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C506	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C507	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C509	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C508	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14,	1	S.A	
C511	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14,	1	S.A	
C512	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14,	1	S.A	
C526	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14,	1	S.A	
C518	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C533	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
CF74	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
CF75	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
CF73	2401-000045	C-AL	10uF,20%,160V,GP,TP,10x16,5	1	S.A	
CF01	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
C516	2401-000360	C-AL	100uF,20%,50V,GP,TP,8x11.5,5	1	S.A	
C519	2401-000430	C-AL	10uF,20%,250V,GP,TP,10x16mm,5m	1	S.A	
C520	2401-000703	C-AL	2200uF,20%,25V,GP,-,12.5x25mm,	1	S.A	
C528	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C534	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
CF71	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C535	2401-000913	C-AL	22uF,20%,16V,GP,TP,5x11,5	1	S.A	
C532	2401-001563	C-AL	47uF,20%,400V,GP,TP,16x25,7.5	1	S.A	
CF04	2401-001872	C-AL	10uF,20%,250V,WT,TP,10x16,5	1	S.A	
LF03	2701-000112	INDUCTOR-AXIAL	100UH,10%,3070	1	S.A	
L502	2701-000178	INDUCTOR-AXIAL	33UH,10%,3070	1	S.A	
L501	2701-001040	INDUCTOR-AXIAL	10UH,10%,4514	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,-,3.5x5,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,-,3.5x5,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,-,3.5x5,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,-,3.5x5,TP,-	1	S.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.N.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.N.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.N.A	
LX085	AA27-90001B	COIL-SPARK,GAP	S-23,1.5KV,-,-,-,-,-,-,-,	1	S.A	
PCB	AA41-01158A	PCB CRT	WS32Z30,FR-1,1L,00,1.6T,160*11	1	S.N.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
GT811	AA60-40014A	PIN-GT,ASSY	AUTO	1	S.A	
R529	2008-001159	R-FUSIBLE(S)	1.5OHM,5%,1W,AF,TP,3.9X10MM	1	S.A	
H/S	BN62-00004A	HEAT SINK-IC	NK,SUN,A6063S,T2.5,W28,L40,	1	S.N.A	
M2893	BP39-00053A	LEAD CONNECTOR	P57A/SVP-55WHT,UL1007#26,	1	S.A	
	HA83-00052A	LP-TAPE-INK	,WIDTH 55 MM	0.01	S.N.A	
IC504	AA96-03636A	ASSY H/S	BH99-00038E	1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.1	S.N.A	
DU410	1201-000010	IC-OP AMP	2030,PENTAWATT,5P,-,SINGLE,-,C	1	S.A	
M0144	BH61-00004A	SPRING ETC-TR	CDA,CDB,SUS304,-,-,-,-,-,T	1	S.N.A	
T0081	BH62-00041A	HEAT SINK-TR	PN17LT,A1050S,T1.0,50,23,WH	1	S.N.A	
IC501	AA96-03651A	ASSY H/S	AA96-03027A	1	S.N.A	
IC502	AA96-03651A	ASSY H/S	AA96-03027A	1	S.N.A	
IC503	AA96-03651A	ASSY H/S	AA96-03027A	1	S.N.A	
T0074	1201-001131	IC-VIDEO AMP	6111,SIP,9P,-,SINGLE,-,PLAS	1	S.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR	1	S.N.A	
T0175	AA62-00147A	HEAT SINK-PS	K62A,A1050,T2.0,35mm,40mm,W	1	S.N.A	
IC506	0502-000006	TR-POWER	KSC1507,NPN,15W,TO-220,TP,120-	1	S.A	
CN906	3711-002642	CONNECTOR-HEADER	BOX,3P,1R,2.5mm,STRAIGH	1	S.A	
CN906	3711-002643	CONNECTOR-HEADER	BOX,4P,1R,2.5mm,STRAIGH	1	S.A	
	AA90-05423A	ASSY COVER MISC-AV	Z30,S62A,S62B,SV012P	1	S.N.A	
T0081	6002-000515	SCREW-TAPPING	RH,+,2,M4,L15,ZPC(WHT),SWR	1	S.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
T0010	AA61-01415A	HOLDER-AV	32Z31,HIPS,BLK,V0	1	S.N.A	
	AA96-03732A	ASSY PCB P-A/V	AA94-15178A	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.01	S.N.A	
CN906	3711-000577	CONNECTOR-HEADER	BOX,10P,1R,2.5MM,STRAIG	1	S.A	
JK01	3722-000544	JACK-VHS	4P,11.5mm,AG,BLK,N	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
JA701	3722-001164	JACK-PIN	3P,3.4mm,SN,WH:YE:RE,#16-22	1	S.A	
T0238	AA97-16274A	ASSY AUTO	AA97-15852A	1	S.N.A	
DZ701	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ702	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ703	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500MW,DO	1	S.A	
R701	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
R702	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2M	1	S.A	
C702	2202-000121	C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP	1	S.A	
C703	2202-000121	C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP	1	S.A	
C701	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C704	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
L701	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L704	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L702	2701-000168	INDUCTOR-AXIAL	3.3UH,5%,2534	1	S.A	
L703	2701-000168	INDUCTOR-AXIAL	3.3UH,5%,2534	1	S.A	
T0091	AA41-01125B	PCB-A/V SIDE	CT-32Z32HD,FR-1,1L,1.6T,245	1	S.N.A	
M2893	BP39-00056D	LEAD CONNECTOR	K62A(CORE),UL1185#26,UL/C	1	S.A	

ASSY FIXING

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0892	AA91-09443B	ASSY FIXING	32Z30,S62B,XEU,SEH	1	S.N.A	
T0081	6002-000515	SCREW-TAPPING	RH,+,2,M4,L15,ZPC(WHT),SWR	4	S.A	
T0081	6002-000515	SCREW-TAPPING	RH,+,2,M4,L15,ZPC(WHT),SWR	1	S.A	
T0070	AA61-01424A	HOLDER-CHASSIS	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
T0010	AA61-01425A	HOLDER-SUB PCB	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
CIS1	AA65-30018A	CLAMPER CORE-WIRE	DONG-A,NYLON-66,-,-,-,	1	S.N.A	
CIS1	AA65-30110A	CLAMPER CORE-WIRE	ALL MODEL,NYLON 66,V2,	1	S.N.A	
⚠ T0066	AA96-01128C	ASSY POWER CORD	DP,AA39-00290A,EP3, UK,H	1	S.A	
T0010	AA61-20284A	HOLDER	P-CORD,PP,-,-,-,BLK,VO,KE-002	1	S.N.A	
T0268	HA39-00290A	CBF-POWER CORD	UK,H03WH2-F,AC250V,10A,2.	1	S.A	
T0077	HA61-01063A	CAP-CORD	PP,1MM,40MM,30MM,RED	1	S.N.A	
T0066	AA64-04278A	INLAY-BACK	32Z30,PS SHEET,T0.5,SHINE,SCA	1	S.N.A	
T0415	AA65-00055A	TERMINAL-BOARD	32Z30,HIPS V0,BLK,SHINE,A	1	S.N.A	

ASSY BOX

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0003	AA92-10865Z	ASSY BOX	WS32Z306VBXXEC	1	S.N.A	
	AA69-02862J	BOX-00,SET	32Z30(SEH),D-5,AB,YEL,A1,EURO	1	S.N.A	
	HA83-00046A	LP-TAPE INK	,WIDTH 105 MM	0.22	S.N.A	

ASSY P/MATERIAL

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0113	AA92-10866B	ASSY P/MATERIAL	32Z30	1	S.N.A	
T0214	AA60-40006A	PIN-STAPLE	AUTO,33X17.8X2.4,H18,33X17.8X	12	S.N.A	
	HA83-00058A	LP-RESIN-EPS	,CHEIL SF-301V,WHT	0.001	S.N.A	
T0081	HA83-00057B	LP-TAPE-CELLULOSE	,HA02-030010,T0,046,W7	2.4	S.N.A	
T0524	6902-000412	BAG PE	HDPE/NITRON/HDPE,T0.015/T0.	1	S.N.A	

ASSY ACCESSORY

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0045	AA92-11228B	ASSY ACCESSORY	32Z30,S62B,XEU,SEH	1	S.N.A	
T0511	AA68-03660A	MANUAL USERS	WS32Z30,English,Europe,W/P	1	S.N.A	
T0098	BN68-00514B	MANUAL-01,WARRANTY	PDP/LCD TV,SAMSUNG,W/	1	S.N.A	
CCM1	HA68-02329A	CARD-REGISTRATION	EUROPE,2,W/P120,A5,4P	1	S.N.A	
	HA83-00047A	LP-TAPEACETATE	T0.1MM,W20MM,L200MM	0.065	S.N.A	
T0074	AA59-00370B	REMOCON	SAMSUNG,TM79,175*44*23,SAMSUNG	1	S.A	
T0610	AA68-03242E	MANUAL-SAFETY GUIDE	All Model,SAMSUNG,8L	1	S.N.A	
T0059	BN68-00907A	MANUAL-CARD	WEEE,SAMSUNG,18 Lang,Europe,	1	S.N.A	

ASSY LABEL

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0019	AA92-11227A	ASSY LABEL	WS32Z306VBXXEC,S61B,SHINE	1	S.N.A	
	AA81-00129A	A/S-TAPE-INK	ALL,BLK,W100MM	0.055	S.N.A	
	HA83-00052A	LP-TAPE-INK	,WIDTH 55 MM	0.032	S.N.A	

ASSY COVER FRONT

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0001	AA90-05299Z	ASSY COVER FRONT	WS32Z306VBXXEC	1	S.N.A	
T0081	6002-000515	SCREW-TAPPING	RH,+,2,M4,L15,ZPC(WHT),SWR	10	S.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+,B,M4,L12,ZPC(BLK),SWR	2	S.N.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+,B,M4,L12,ZPC(BLK),SWR	1	S.N.A	
M0081	6003-001024	SCREW-TAPTITE	RWH,+,B,M4,L12,ZPC(YEL),SW	4	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
CRT+C/F	AA60-10050V	BOLT-HEX	-,SWRCH18A,M6,L30,HH,+,WC,-,Z	4	S.N.A	
T0175	AA96-02859A	ASSY SPEAKER P	8ohm,Core,Oz,10W,800/500m	1	S.A	
T0003	AA96-02867N	ASSY COVER P-FRONT	32Z30,CIS,HIPS HB,GR5	1	S.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+,B,M4,L12,ZPC(BLK),SWR	12	S.N.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+,B,M4,L12,ZPC(BLK),SWR	1	S.N.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0112	AA63-00958D	COVER-FRONT	32Z30,HIPS,HB,GR503,SV012P+B	1	S.N.A	
T0750	AA63-00962M	COVER-MASK	32Z30 S62B,HIPS,HB,BLK,BKM-13	1	S.A	
T0057	AA64-01062B	BADGE-BRAND	ALL,AL,T1.5,10.6,L65,BLK.SIL	1	S.A	
T0299	AA64-04191A	WINDOW-RMC LED	32Z30,PC CLEAR	1	S.N.A	
T0084	HA83-00010A	LP-RESIN	,OROGLAS,VM-100 ZHN 2	0.001	S.N.A	
T0023	BP64-00326A	KNOB POWER	43T9,ABS,HB,BLK,SVM3012	1	S.N.A	
T0091	HA83-00006A	LP-RESIN HIPS	,BASF495F,NTR,HB	2.16	S.N.A	
T0084	HA83-00011A	LP-RESIN	,M BATCH,WILSON 6007-GY-60,GRY	0.04	S.N.A	
	HA83-00040B	LP-MARKING PAINT	,METALLIC SILVER,SV-012	0.001	S.N.A	
CIS3	BP64-00331B	DECORATION-POWER	PJTV,ABS,HB,GR503,SVM30	1	S.N.A	
T0569	AA61-01433A	SUPPORT-CRT	32Z30(SLIM),HIPS,T2.0,GR503,	2	S.A	

ASSY COVER REAR

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0002	AA90-05300L	ASSY COVER REAR	WS32Z306VBXXEC	1	S.N.A	
M0006	AA63-00961A	COVER-REAR	32Z30(SAMEX),HIPS,V0,BK500	1	S.A	
T0069	AA60-00091J	SPACER-FELT	-,FELT,330X10,-,-,BLK,T0.5,-	3	S.N.A	
T0098	AA81-00096A	RESIN-A	VL-1823,G5433,A	0.1	S.N.A	
T0578	AA64-04200U	INLAY AV	32Z30,PS,T0.3,SHEET,BLK,SI411D	1	S.A	
T0522	AA65-30008A	CLAMPER CORE-CORD	-,PE,HB,-,BLK,-	1	S.N.A	
T0016	AA65-30109A	CLAMPER CORE-FBT	-,NYLON-66,V2,-,BLK,-	1	S.N.A	
				S.A		

ASSY CPT

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0521	AA91-07368L	ASSY CPT	CT-32Z30HD(SILM),KOREA,+380MG,	1	S.N.A	
⚠ T0063	AA03-00418A	CRT COLOR	W76QFV891X002,+380,0.28,11.1,0	1	S.A	
T0090	AA27-00345A	COIL DEGAUSSING-TILT	32,51.0mH,300Turns,	1	S.A	
T0603	AA96-02967A	ASSY TBC WIRE P	K62A,32,NTSC,4P	1	S.N.A	
T0603	AA63-10002A	BAND-TIE	NYLON66 V2,L100,NTR	1	S.N.A	
T0089	AA27-00343B	COIL DEGAUSSING	CORE(K62A),23.40mH,70TS,	1	S.A	
T0121	3301-001305	CORE-FERRITE	AE,30X15X34(39)MM,1500,2800	1	S.N.A	
T0527	AA61-01373C	HOLDER-D COIL	NYLON,W31MM,WHT,SEH	4	S.N.A	
T0527	AA65-00061A	CLAMPER CORE-D,COIL	NYLON-66,VO,NTR	4	S.N.A	

6. Troubleshooting

6-1 Checkpoints by Error Mode

■ Power LED: Check that the LED works when turning the Master Switch ON/OFF

■ LED Indicators: See table 6-2-1 Basic Troubleshooting: LED Diagnosis on the Front Panel.

■ In case of a power failure or abnormal screen, check the following items.

1) Check that the power cord is correctly connected to a 220V wall outlet.
2) Check that the Master Switch has been pressed.
3) Check that the transmitter is turned on.
4) Check that transmitter device selection is set to TV.
5) Check that the signal cable is properly connected.
6) Check that channel setting has been set.

6-1-1 Basic Approaches for Troubleshooting

■ Troubleshooting Mechanism :
- The Main Board has Power part which supplies power to Deflection and Feature Box.
- The Feature Box receives all signal inputs,the signal-processed signal is sent to CRT Ass'y.
- Deflection and Focus are controlled by the Deflection Board.

■ Troubleshooting by Modules

1) Enter Service Mode

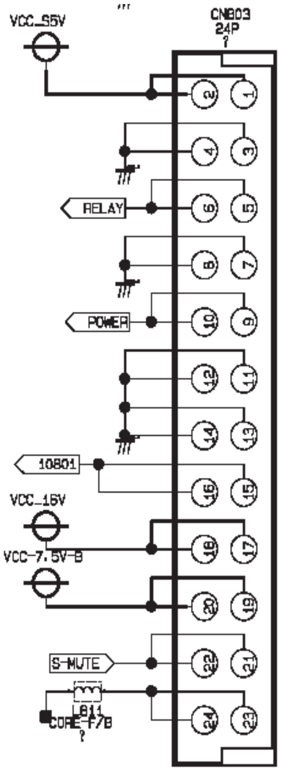
(In SET Stand-By Status,if you press "Info"→"Menu"→"Mute" and "Power" button in sequence on the remote control, the screen is turned on and the Service Mode screen appears.)

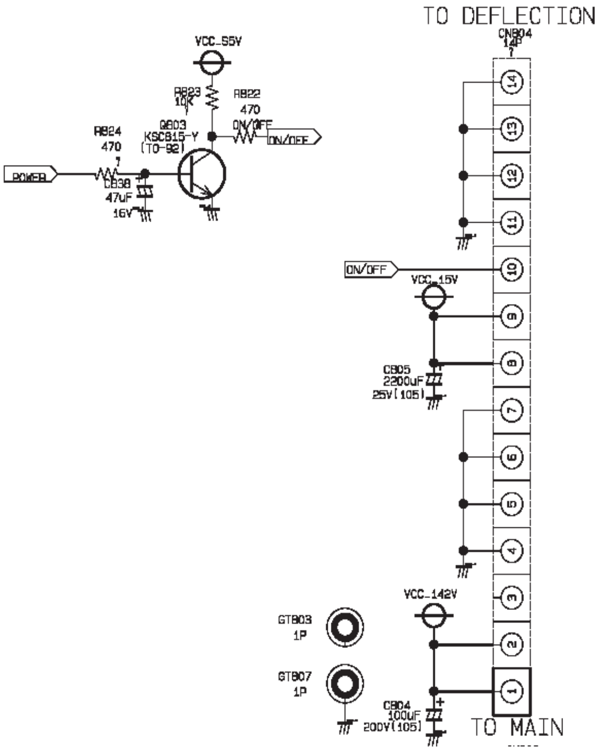
2) Check if the System Board is out of order.

Press OPTION → TEST PATTERN → Right direction key:
The COLOR BAR, BLACK pattern and WHITE pattern are displayed on the screen.
If the pattern is not displayed or is displayed abnormally, the DNIe IC (SPD41) or the System Board is out of order.

3) Check if the Power Board, which supplies power to the System Board and the Deflection Board, is out of order.

If you cannot turn the screen on by pressing the POWER ON/OFF button or the screen repeatedly turns on and off when pressing the POWER ON/Off button, check if the Power Board is out of order. (Refer to the circuit diagram)

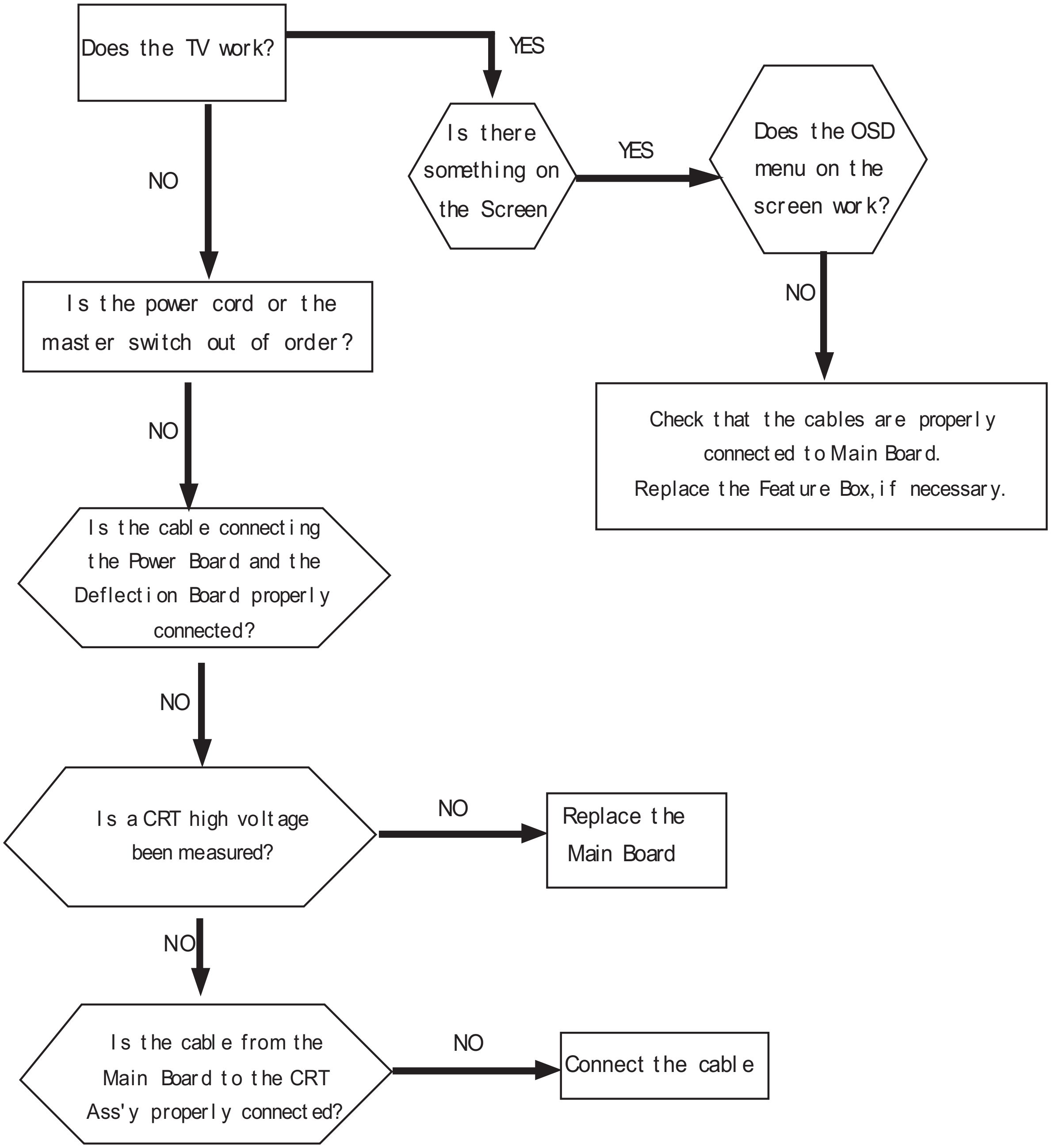

VCC_55V
CN803
24P
RELAY
POWER
10801
VCC_16V
VCC-7.5V-B
S-MUTE
L811
CORE-F/B


TO DEFLECTION
CN804
14P
VCC_55V
R823
10K
R822
470
Q803
KSC815-Y
(TO-92)
R824
470
ON/OFF
POWER
C838
47uF
16V
ON/OFF
VCC_15V
C805
2200uF
25V(105)
VCC_142V
GT803
1P
GT807
1P
C804
100uF
200V(105)
TO MAIN

4) Check if the Deflection Board is out of order.

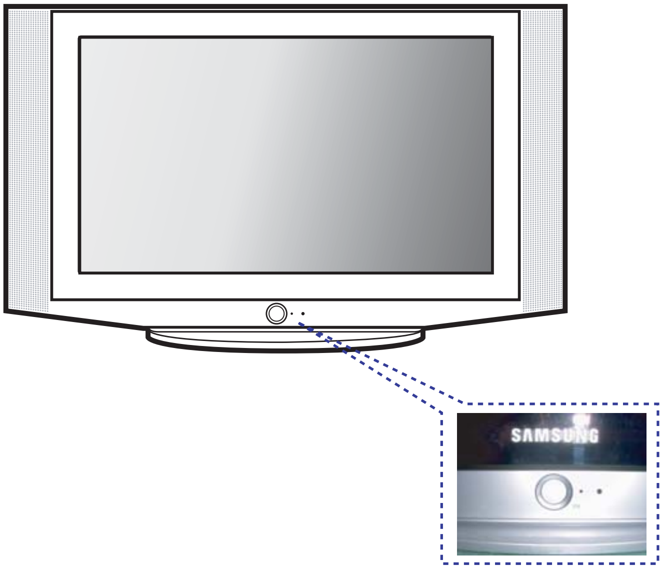
When the screen is not properly displayed and the left or right side of the picture is shrunk, or the top or bottom of the screen is expanded or shrunk, check if the Deflection Board is out of order.

6-1-2 Flow Chart for Malfunction


Does the TV work?
YES
Is there something on the Screen
YES
Does the OSD menu on the screen work?
NO
Check that the cables are properly connected to Main Board.
Replace the Feature Box, if necessary.
NO
Is the power cord or the master switch out of order?
NO
Is the cable connecting the Power Board and the Deflection Board properly connected?
NO
Is a CRT high voltage been measured?
NO
Replace the Main Board
NO
Is the cable from the Main Board to the CRT Ass'y properly connected?
NO
Connect the cable

6-2 Troubleshooting Procedures by Error Modes

6-2-1 Basic Troubleshooting: Diagnosis of LED on the Front Panel



● : Light is On
◑ : Light is Blinking
○ : Light is Off

Power	Description
○	This happens when the Master Switch is not pressed or the power cord is disconnected.
●	This happens when the power cord is connected and the power switch is pressed. If you cannot set the power switch on by pressing it, check the power switch Ass'y.
○→◑→●	If you press the power switch of the transmitter or the channel key on the remote control when in St-BY status, the screen will be turned on. If the LED blinks and the screen is not displayed, check the connection between the Power and the System Board.

6-2-2 Troubleshooting by the Checksum

■ Diagnosis of trouble by the checksum is neither reliable nor convenient.
You can only use the checksume of the current direct-view TV to determine whether the software is corrupted or not.
The Checksum value is determined according to the version of the software loaded on the set.
Therefore, you can determine whether the software has been properly downloaded, if you know the correct checksum for that version of the software.

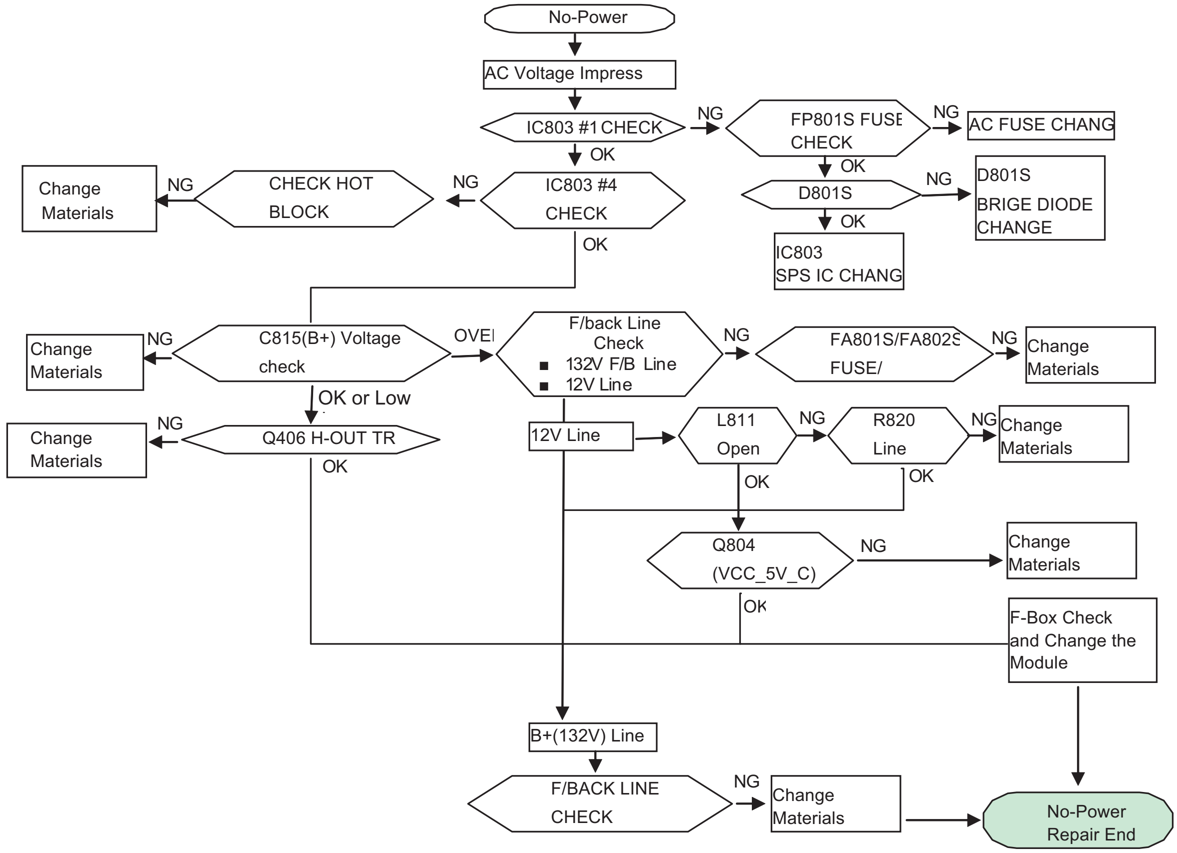
You can check the checksum according in the following order.
Factory Mode → Checksum → Right Button → Calculate Checksum → Output Checksum (e.g. 0xab2b)

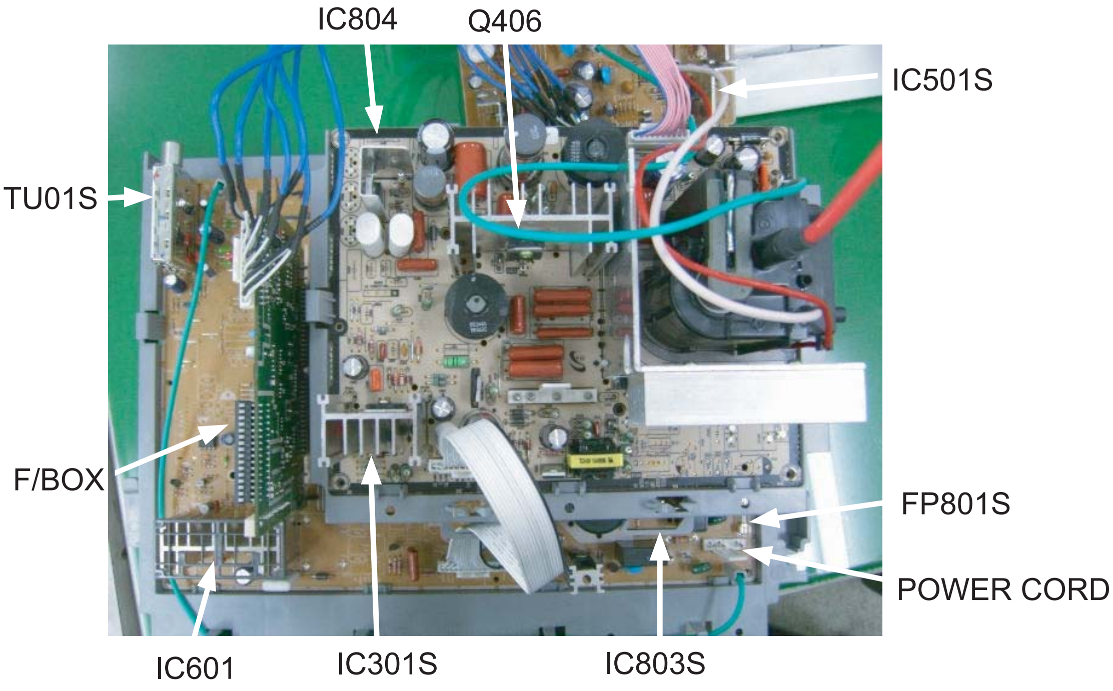
■ Checksum Examples
T_COREOAKR1_1010 : checksum = 0xab2b
T_COREOAKR1_1014 : checksum = 0x4faa

6-3 Troubleshooting Procedures by ASS'Y

6-3-1 NO Power

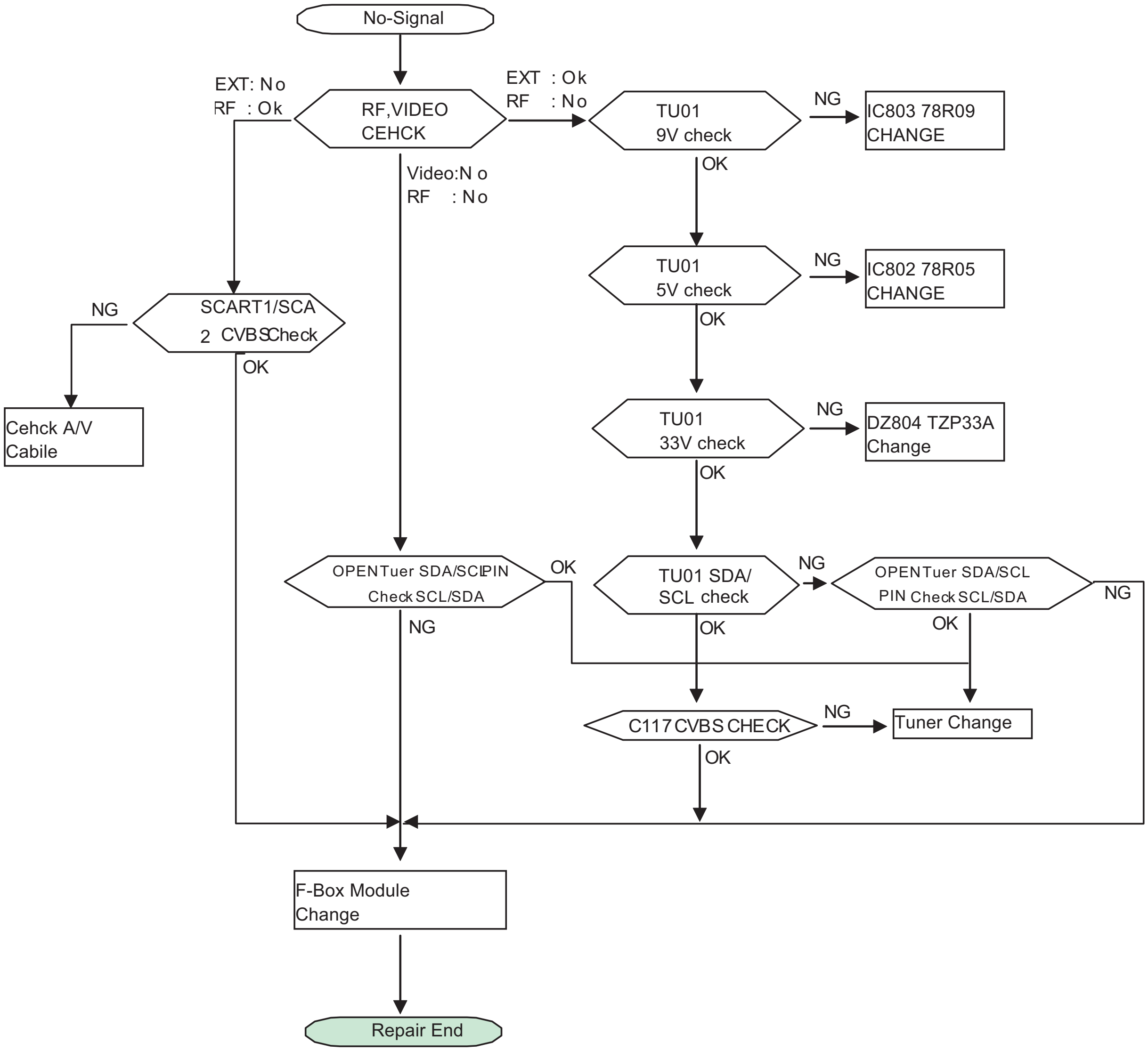
1. Power Board Check


No-Power
AC Voltage Impress
IC803 #1 CHECK
NG
FP801S FUSE CHECK
NG
AC FUSE CHANG
OK
D801S
NG
D801S BRIGE DIODE CHANGE
OK
IC803 SPS IC CHANG
IC803 #4 CHECK
NG
CHECK HOT BLOCK
NG
Change Materials
OK
C815(B+) Voltage check
NG
Change Materials
OVEI
F/back Line Check
■ 132V F/B Line
■ 12V Line
NG
FA801S/FA802S FUSE/
NG
Change Materials
OK or Low
Q406 H-OUT TR
NG
Change Materials
OK
12V Line
L811 Open
NG
R820 Line
NG
Change Materials
OK
OK
Q804 (VCC_5V_C)
NG
Change Materials
OK
F-Box Check and Change the Module
B+(132V) Line
F/BACK LINE CHECK
NG
Change Materials
No-Power Repair End


IC804
Q406
IC501S
TU01S
F/BOX
FP801S
POWER CORD
IC601
IC301S
IC803S

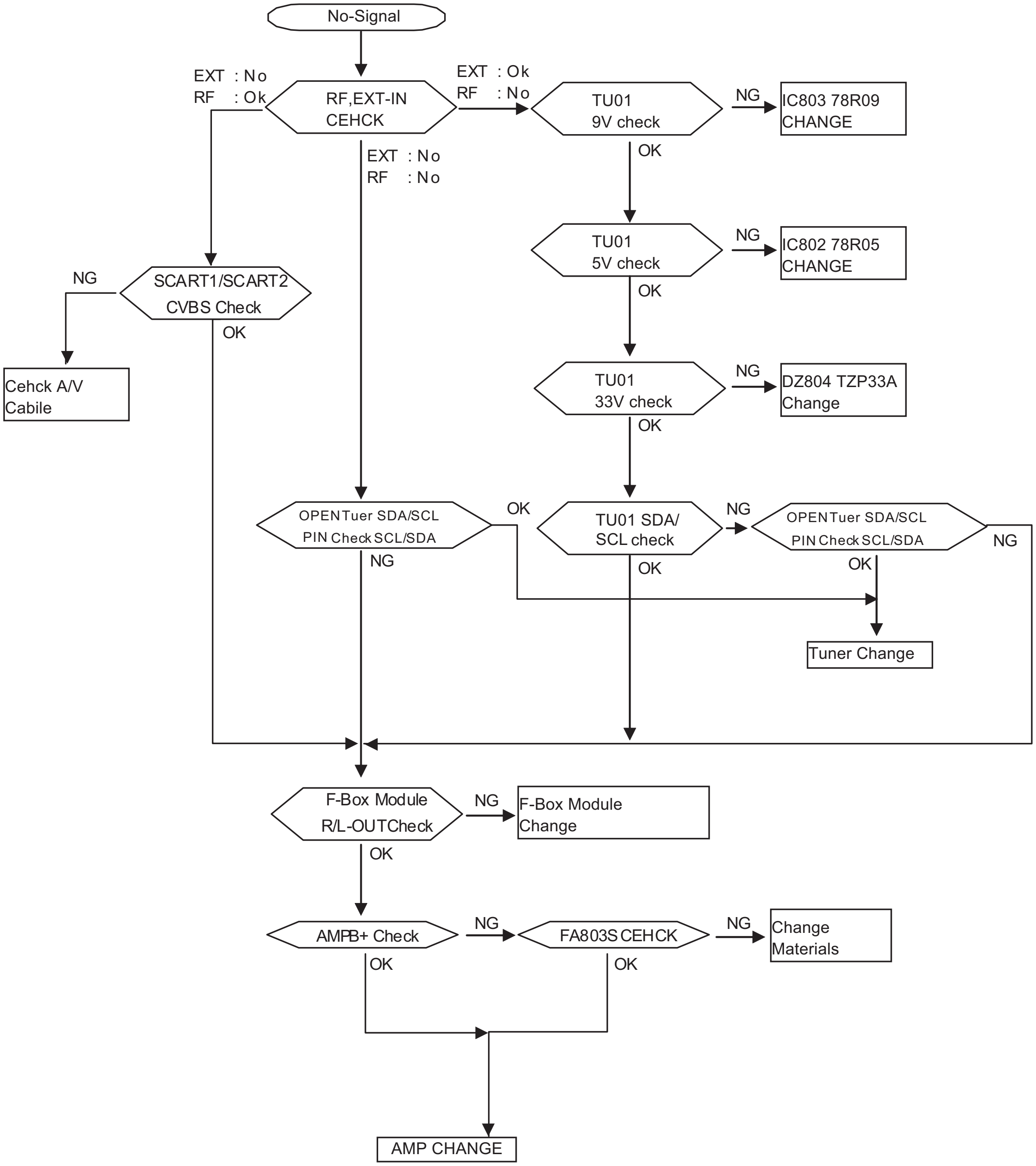
6-3-2 NO Video

1. when the power is normal


No-Signal
EXT: No
RF : Ok
RF,VIDEO CEHCK
EXT : Ok
RF : No
TU01 9V check
NG
IC803 78R09 CHANGE
OK
Video:No
RF : No
TU01 5V check
NG
IC802 78R05 CHANGE
OK
NG
SCART1/SCA 2 CVBS Check
OK
Cehck A/V Cabile
TU01 33V check
NG
DZ804 TZP33A Change
OK
OPEN Tuer SDA/SCL PIN Check SCL/SDA
OK
NG
TU01 SDA/ SCL check
NG
OPEN Tuer SDA/SCL PIN Check SCL/SDA
NG
OK
OK
C117 CVBS CHECK
NG
Tuner Change
OK
F-Box Module Change
Repair End

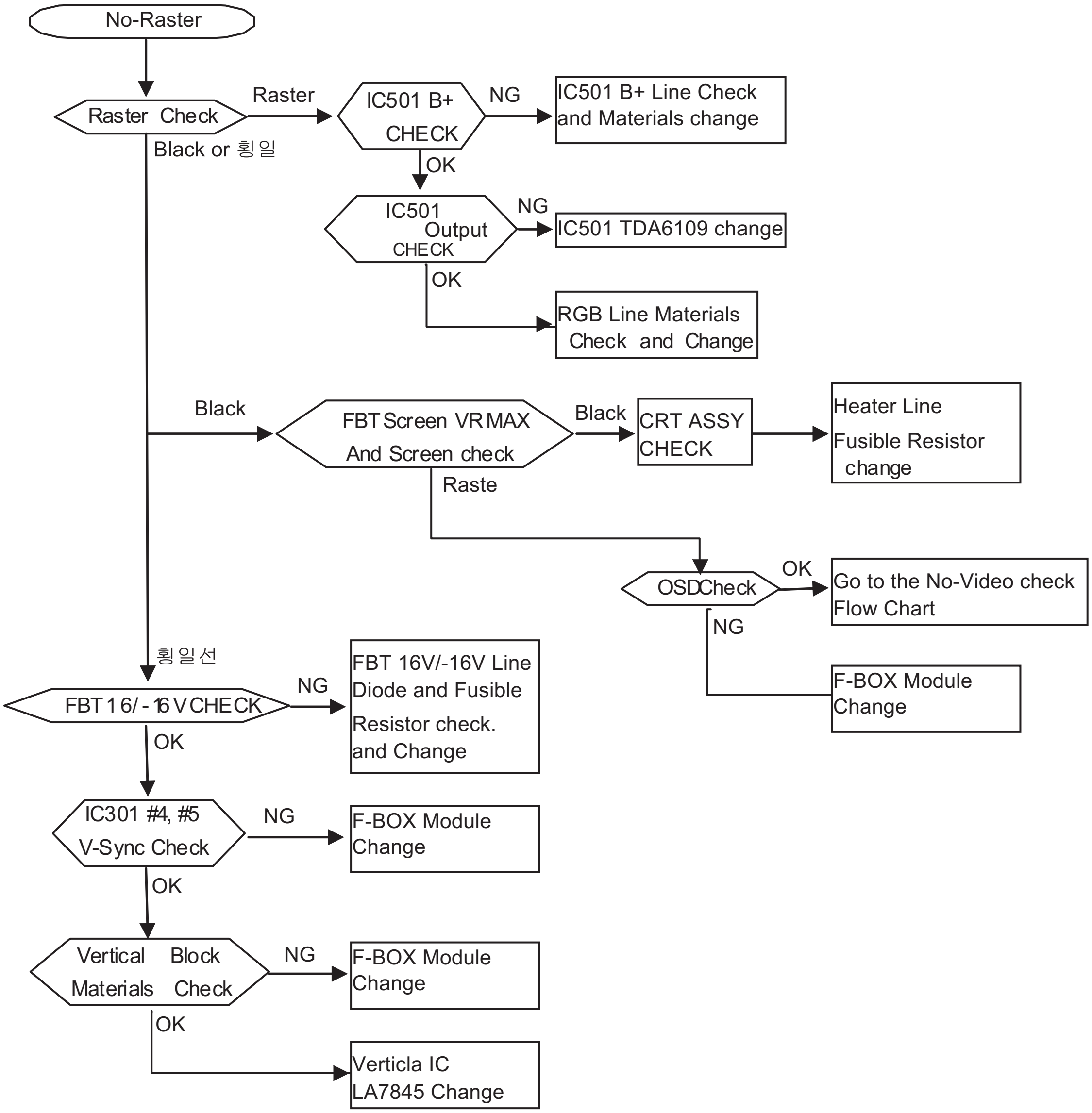
6-3-3 No Sound

1. when the power is normal


No-Signal
EXT : No
RF : Ok
RF,EXT-IN CEHCK
EXT : Ok
RF : No
TU01 9V check
NG
IC803 78R09 CHANGE
OK
EXT : No
RF : No
TU01 5V check
NG
IC802 78R05 CHANGE
OK
NG
SCART1/SCART2 CVBS Check
OK
Cehck A/V Cabile
TU01 33V check
NG
DZ804 TZP33A Change
OK
OPEN Tuer SDA/SCL PIN Check SCL/SDA
OK
TU01 SDA/ SCL check
NG
OPEN Tuer SDA/SCL PIN Check SCL/SDA
NG
NG
OK
OK
Tuner Change
F-Box Module R/L-OUTCheck
NG
F-Box Module Change
OK
AMPB+ Check
NG
FA803S CEHCK
NG
Change Materials
OK
OK
AMP CHANGE

6-3-4 No Raster

1. when the H/V is normal


No-Raster
Raster Check
Raster
Black or 횡일
IC501 B+ CHECK
NG
IC501 B+ Line Check and Materials change
OK
IC501 Output CHECK
NG
IC501 TDA6109 change
OK
RGB Line Materials Check and Change
Black
FBT Screen VR MAX And Screen check
Black
CRT ASSY CHECK
Heater Line Fusible Resistor change
Raste
OSD Check
OK
Go to the No-Video check Flow Chart
NG
F-BOX Module Change
횡일선
FBT 16/-16 V CHECK
NG
FBT 16V/-16V Line Diode and Fusible Resistor check. and Change
OK
IC301 #4, #5 V-Sync Check
NG
F-BOX Module Change
OK
Vertical Block Materials Check
NG
F-BOX Module Change
OK
Verticla IC LA7845 Change

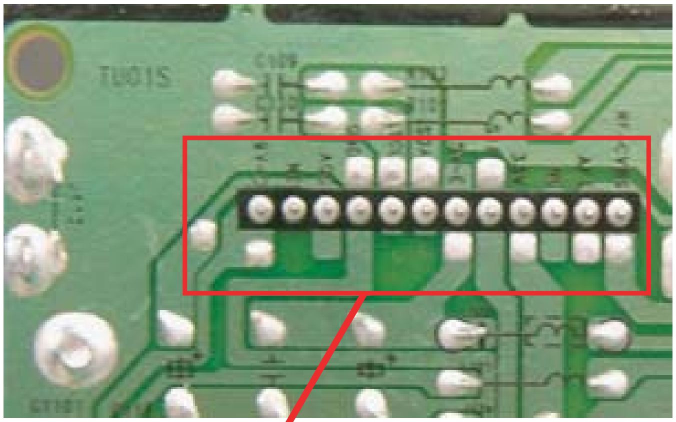
6-4 Troubleshooting by Blocks

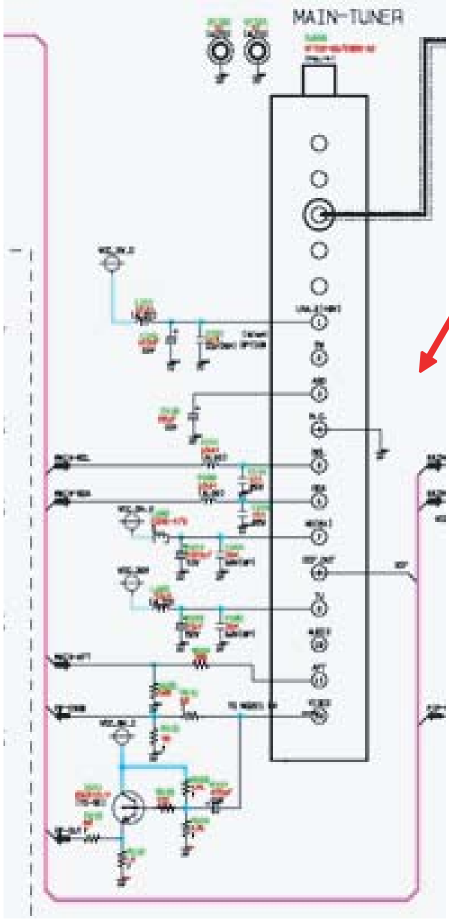
6-4-1 Troubleshooting System Boards

1. Tuner Diagnosis

- If no signal is received even though the RF signal from the external aerial is connected to the MAIN Board Tuner, check the following items.
- Supply Power: 5V, 9V, 33V
- Check for an RF defect: Check the CVBS output
- Check for an AUDIO defect: Check the SiF Signal output

AA40-00130A
TMQZ2-401A
5620K80G-G
MADE IN KOREA

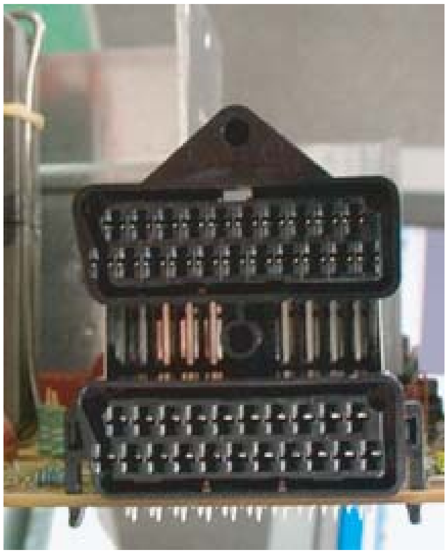


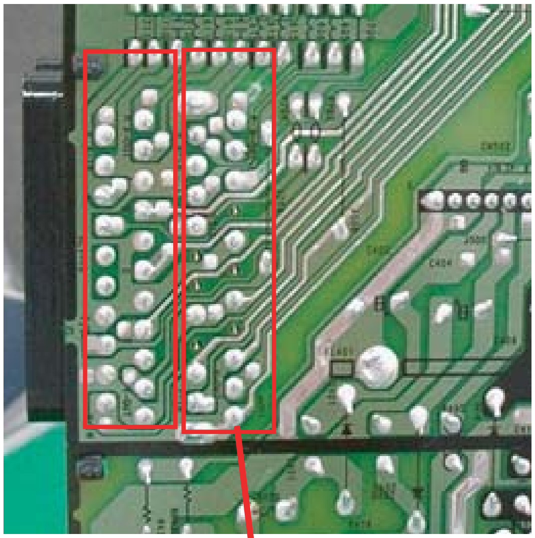


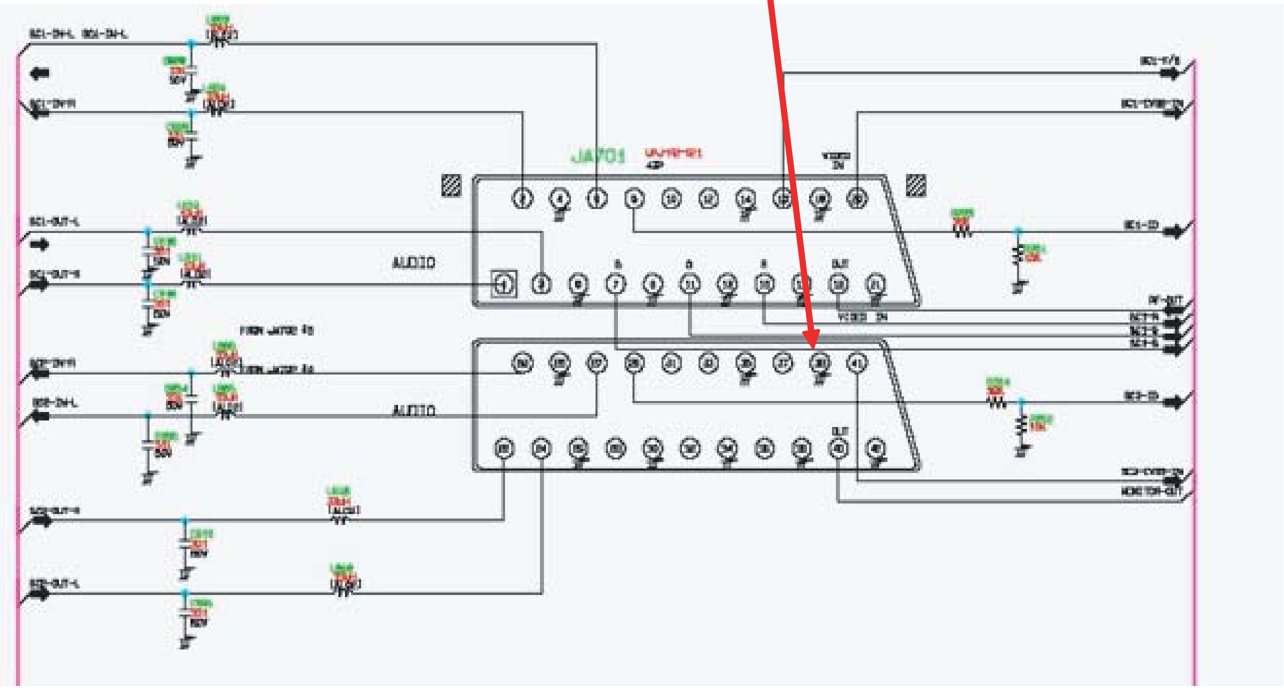
2. External Input Diagnosis

It receives the EXT1/EXT2/signal and consists of monitor output (video and audio).
The signal is input to VSP9402 through the port. If no signal input/output is detected, check the following items.

- Power supply : VSP9402(3.3V,1.8V) , CXA2180(5V)
- Check if the input and output jacks are defective.



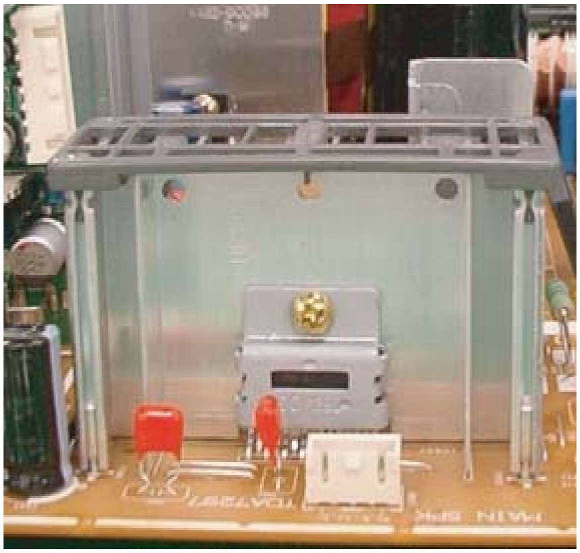


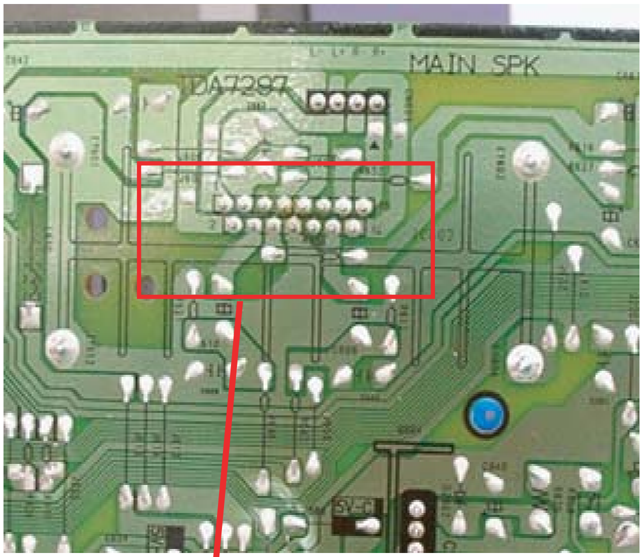

JA701
AUDIO
VIDEO IN
OUT
VIDEO IN
AUDIO
OUT

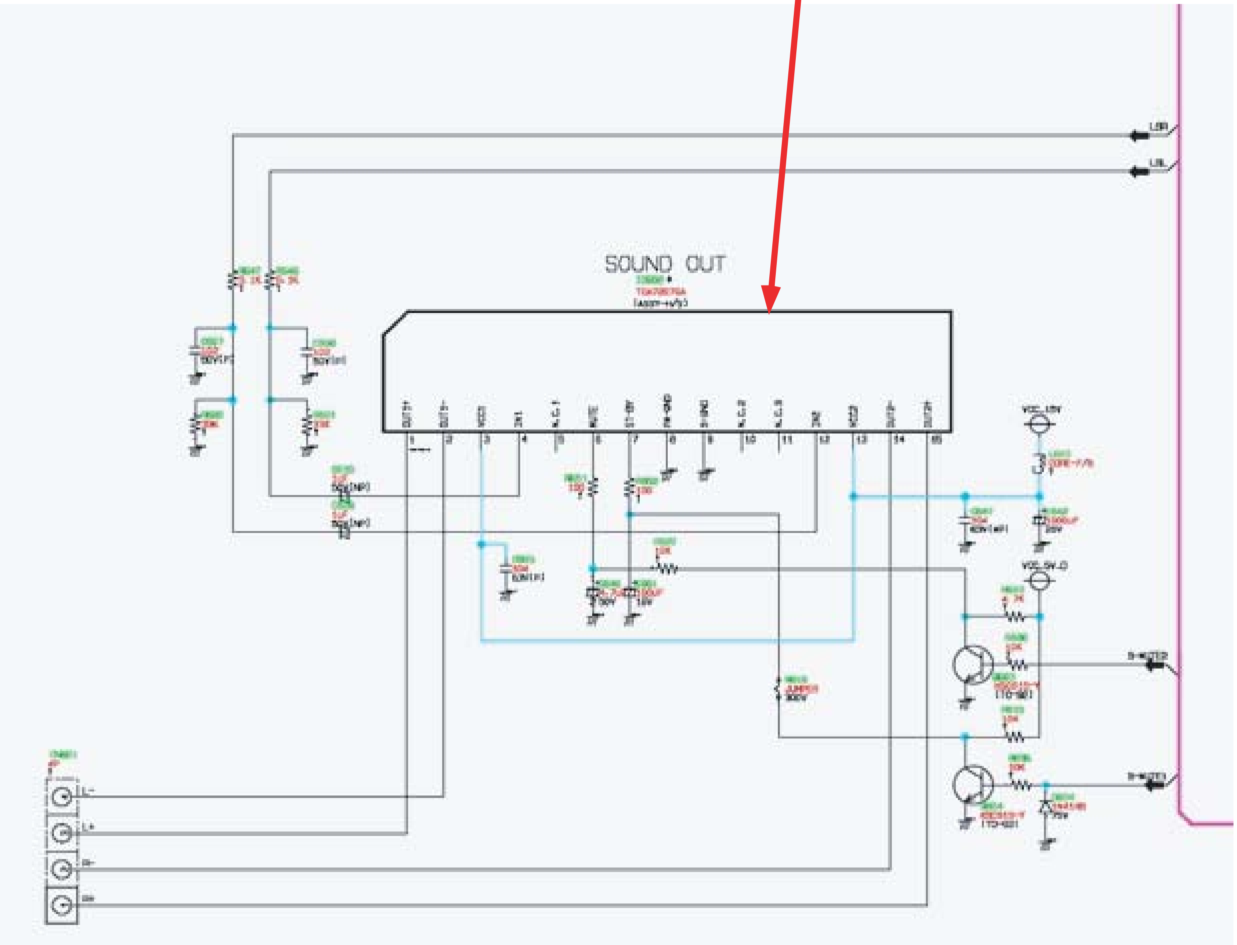
3. DNIe (SPD41) Diagnosis

The signal is received from the Audio Processor (MSP3421G) and sound is output at 10W + 10W power.

- Power supply :15V
- Check for input defects : L/R
- Check for output defects : L+, L-, R+, R-



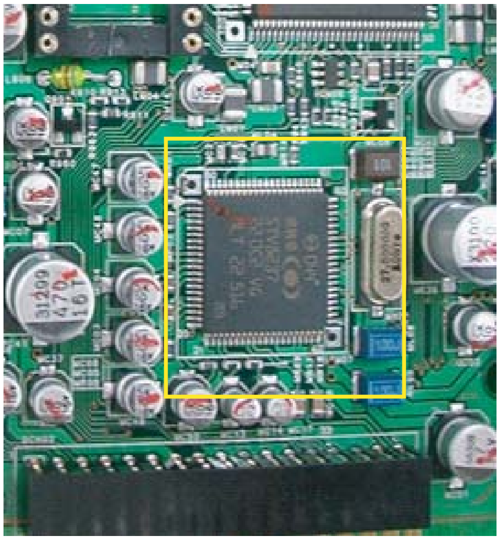

TDA7297
MAIN SPK

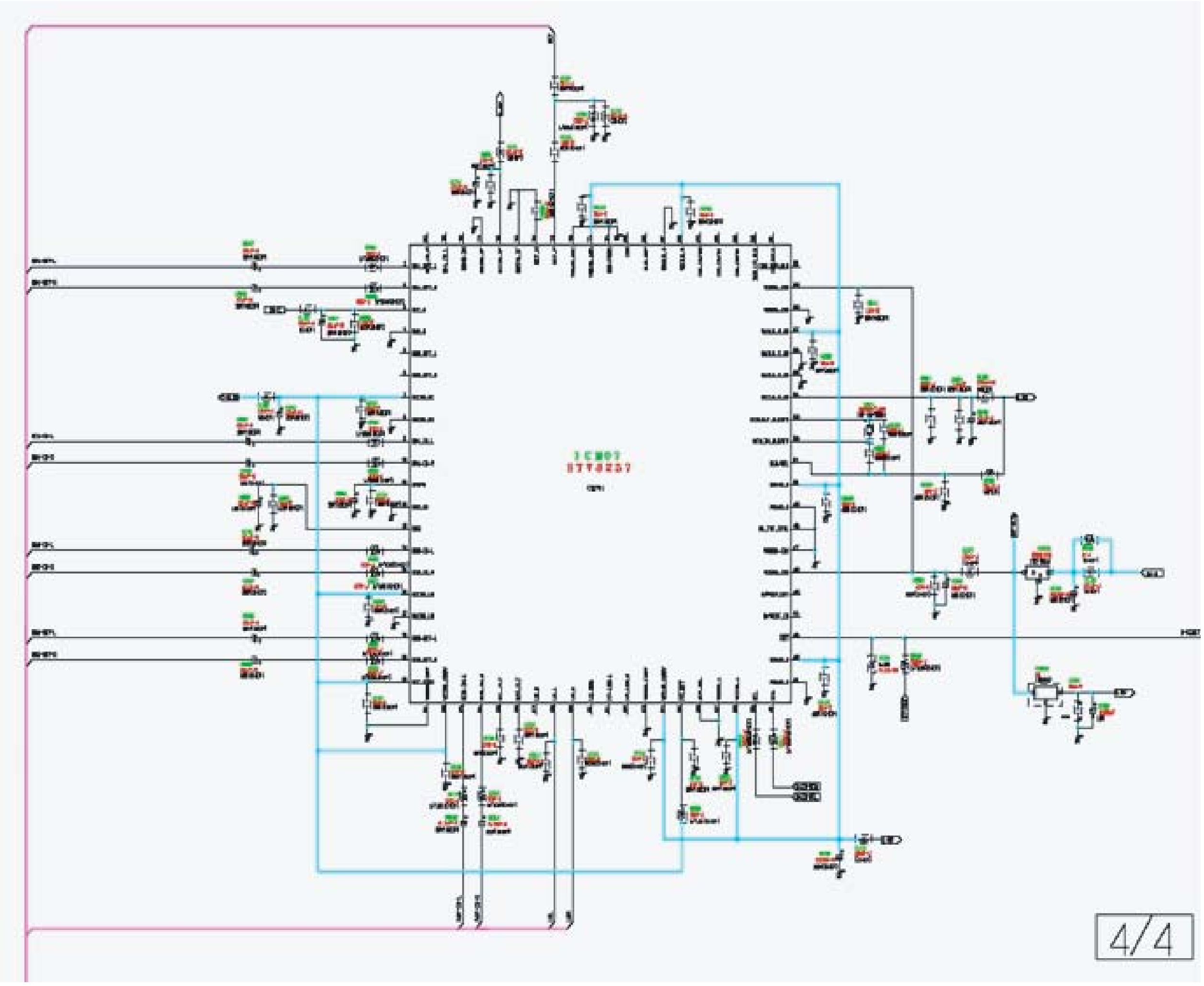

SOUND OUT
OUT1+
OUT1-
VCC1
IN1
N.C.1
MUTE
ST-BY
PW-GND
S-GND
N.C.2
N.C.3
IN2
VCC2
OUT2-
OUT2+
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
VCC_15V
VCC_5V_D
L-
L+
R-
R+

4. STV8237(Audio Processor) Diagnosis

It processes the SIF and SCL 1/2 signal output from the Tuner.

- Power supply : 3.3V,1.8V,9V , 5V
- Check for input defects : SIF, SCL1/2-IN,SCL1/2-OUT
- Check for output defects : SOUND L/R

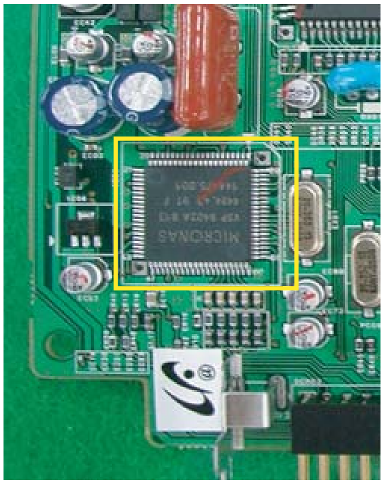


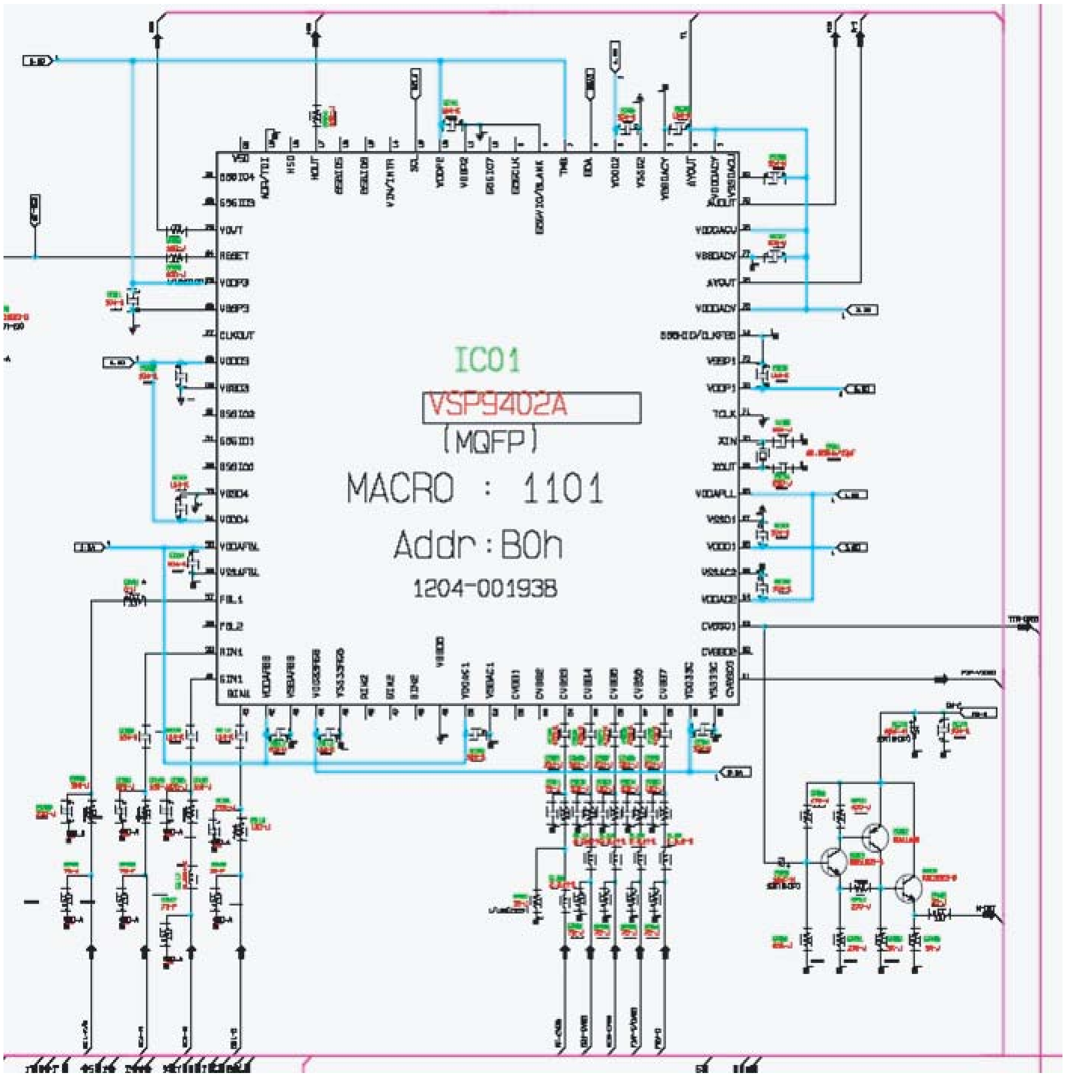


5. VSP9402 Diagnosis

It receives RF, AV1/2/3 and S-VHS (Y,C) signals and outputs to Y/Pb/Pr of CXA2180Q, M-OUT and V-OUT through internal switching.

- Power supply :1.8V, 3.3V
- Check for input defects : RF, SCL1/2,S-VHS(Y,C)
- Check for output defects :M-OUT,Y,Pb,Pr,HS1,VS1


MICRONAS
VSP 9402A

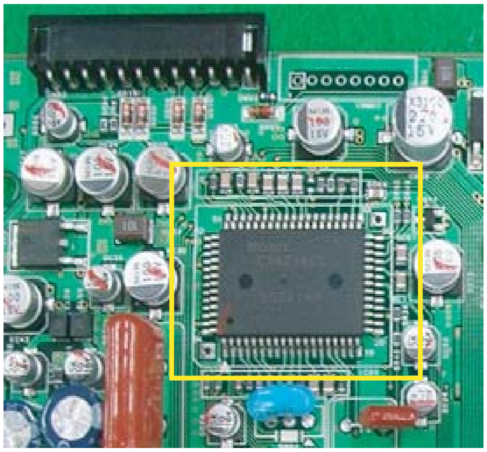

IC01
VSP9402A
(MQFP)
MACRO : 1101
Addr : B0h
1204-001938
VOUT
RESET
CLKOUT
FBL1
FBL2
RIN1
GIN1
AYOUT
TCLK
XIN
XOUT

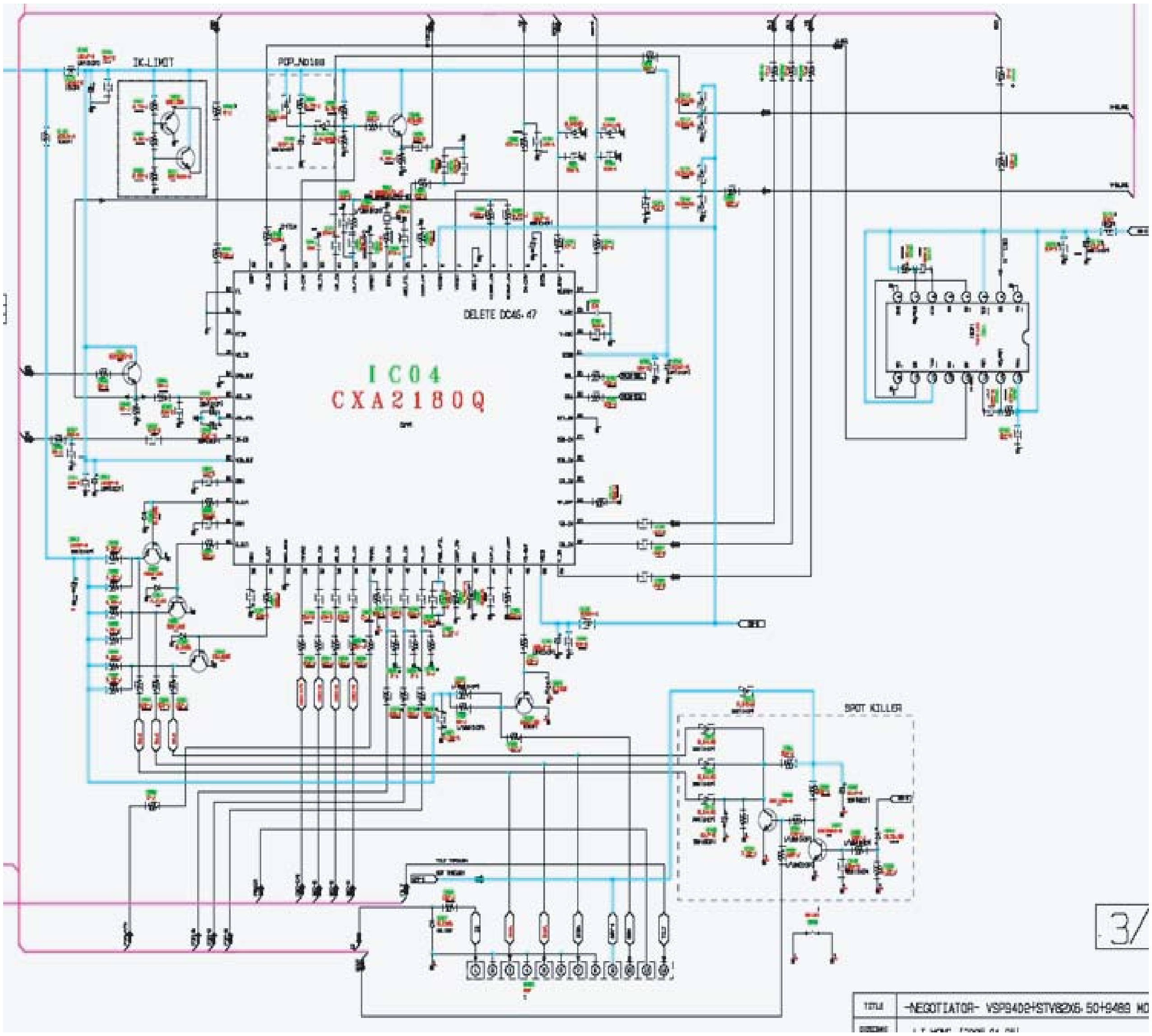
6. CXA2180 Diagnosis

The Y/Pb/Pr signal is received from VSP9405B and CXA2151Q and the signal is output as R/G/B. It also outputs the V/H Drive, E/W and performs the ABL and EHT operation.

If V-Drive output is not detected, check for an IC defect.

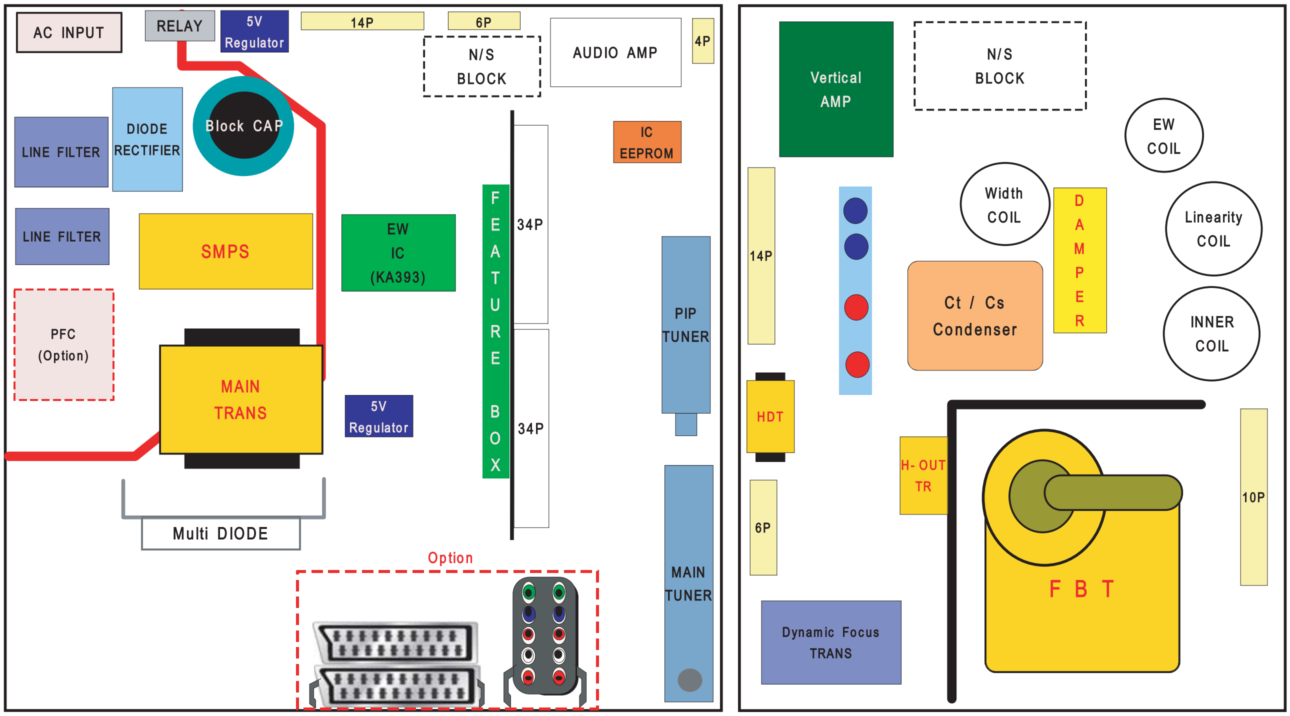
- Power supply : 5V, 9V
- Check for input defects : Y/Pb/Pr, H/V
- Check for output defects : R/G/B, ABL, EW, V/H-DRIVE

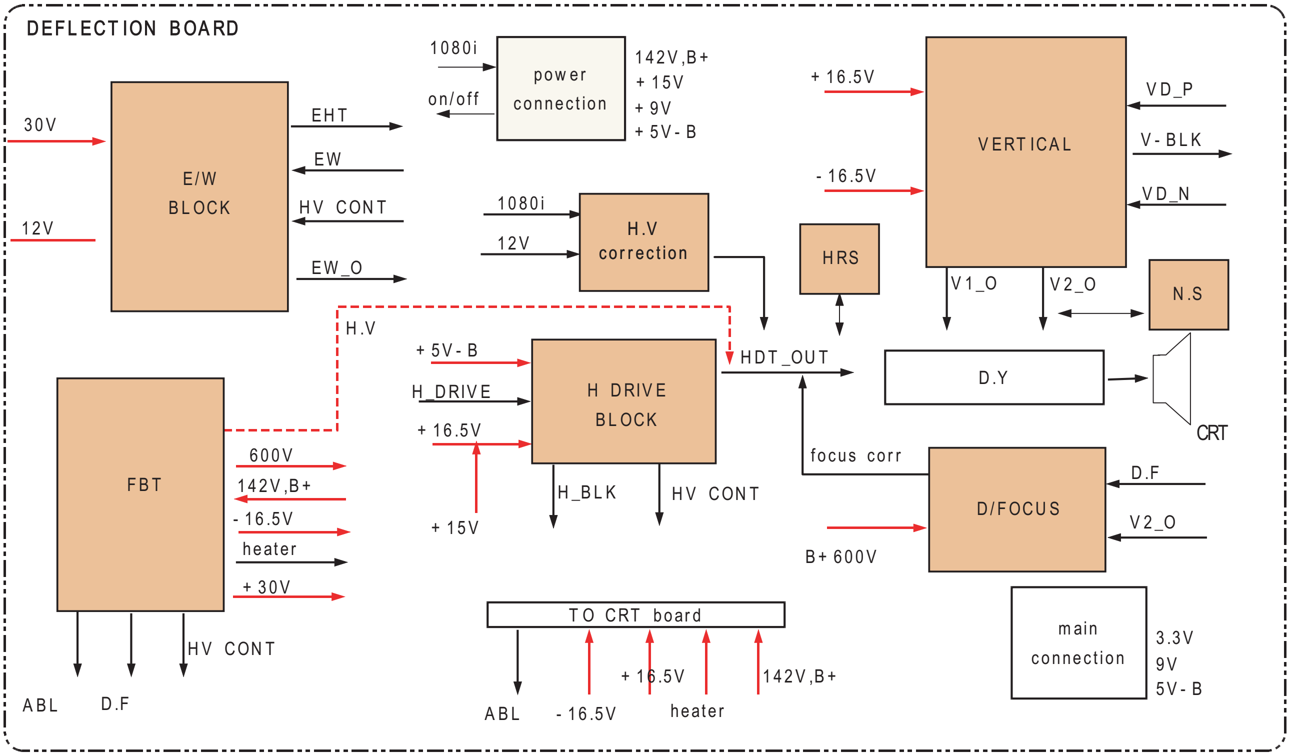


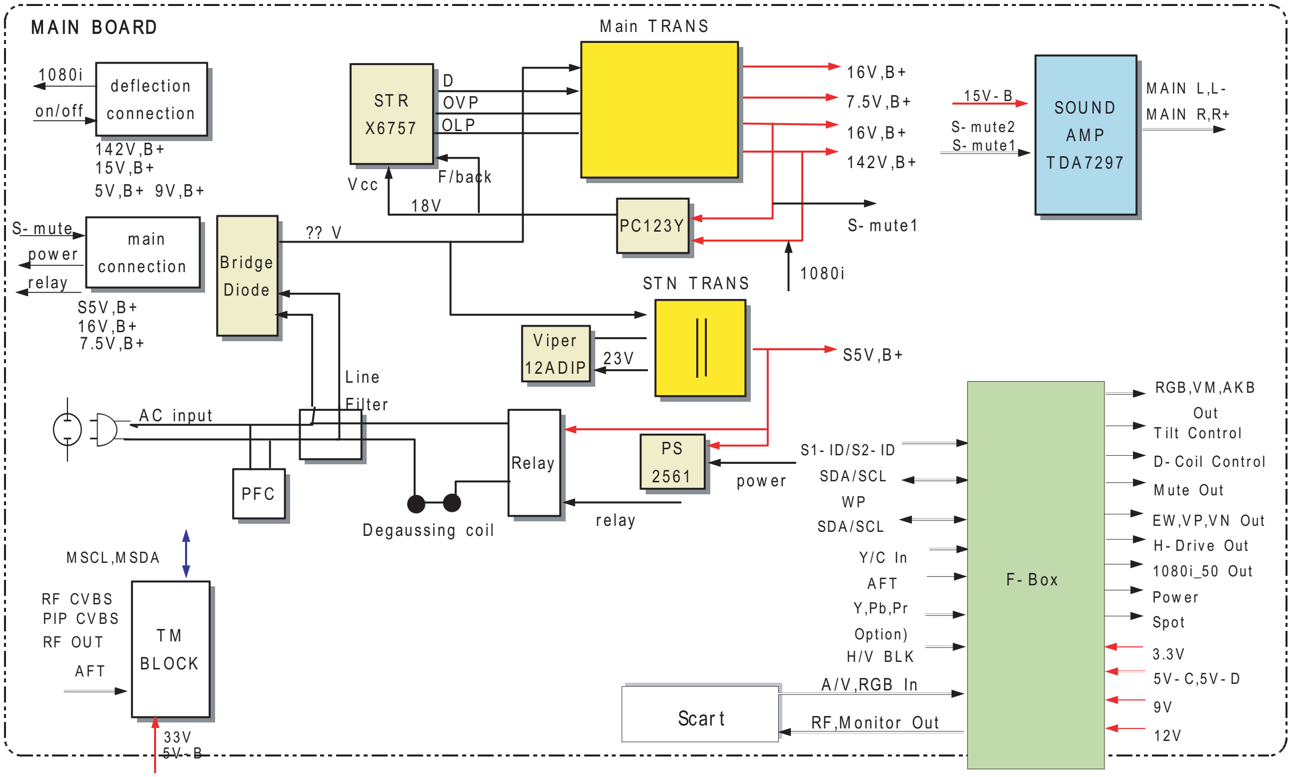

IK_LIMIT
POP_AD188
DELETE DC46-47
IC04
CXA2180Q
SPOT KILLER
3/
TITLE
-NEGOTIATOR- VSP9402+STV82X6 50+9489 MO

7. Block Diagram

7-1 Overall Block Diagram

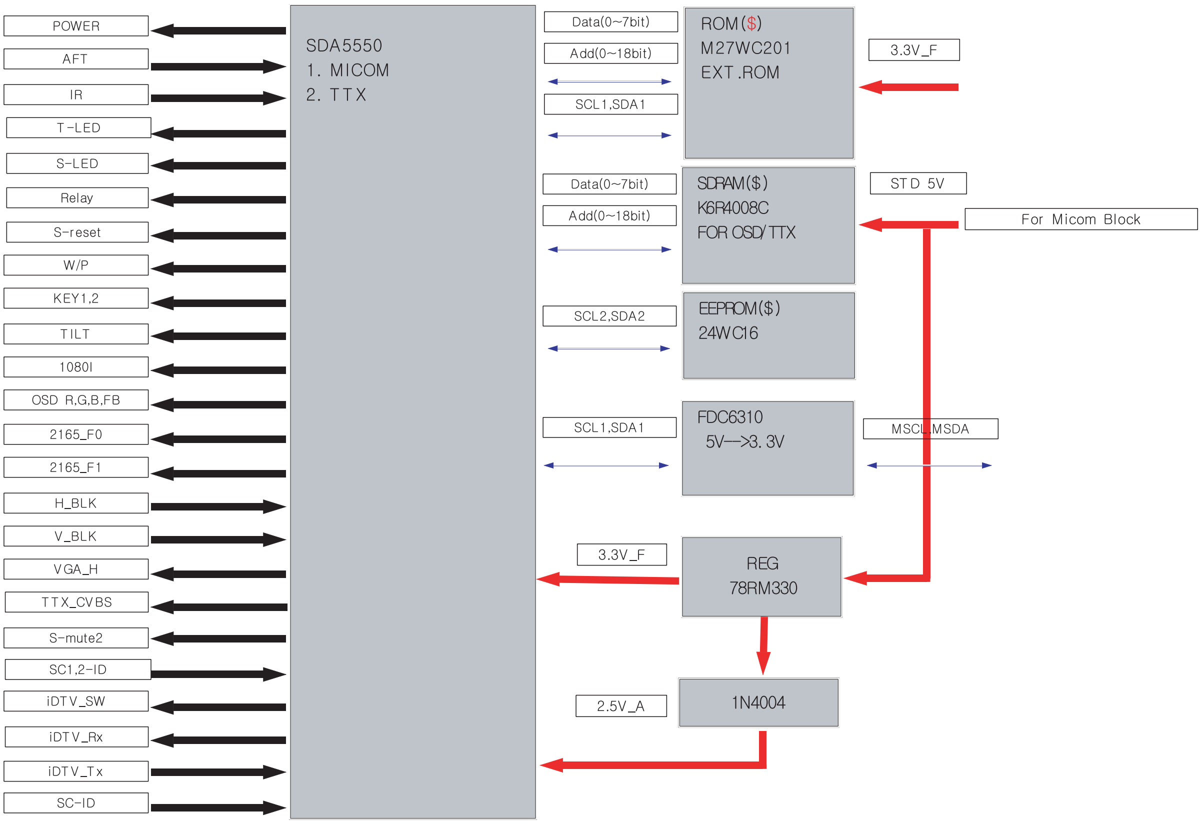

AC INPUT
RELAY
5V Regulator
14P
6P
N/S BLOCK
AUDIO AMP
4P
LINE FILTER
DIODE RECTIFIER
Block CAP
IC EEPROM
LINE FILTER
SMPS
EW IC (KA393)
FEATURE BOX
34P
34P
PFC (Option)
MAIN TRANS
5V Regulator
PIP TUNER
Multi DIODE
Option
MAIN TUNER
Vertical AMP
N/S BLOCK
EW COIL
Width COIL
DAMPER
Linearity COIL
14P
Ct / Cs Condenser
INNER COIL
HDT
H- OUT TR
10P
6P
F B T
Dynamic Focus TRANS


DEFLECTION BOARD
30V
12V
E/W
BLOCK
EHT
EW
HV CONT
EW_O
1080i
on/off
power
connection
142V,B+
+ 15V
+ 9V
+ 5V-B
1080i
12V
H.V
correction
+ 16.5V
- 16.5V
VERTICAL
VD_P
V-BLK
VD_N
HRS
V1_O
V2_O
N.S
H.V
+ 5V-B
H_DRIVE
+ 16.5V
H DRIVE
BLOCK
HDT_OUT
D.Y
CRT
+ 15V
H_BLK
HV CONT
focus corr
D/FOCUS
D.F
V2_O
B+ 600V
FBT
600V
142V,B+
- 16.5V
heater
+ 30V
HV CONT
ABL
D.F
TO CRT board
ABL
- 16.5V
+ 16.5V
heater
142V,B+
main
connection
3.3V
9V
5V-B

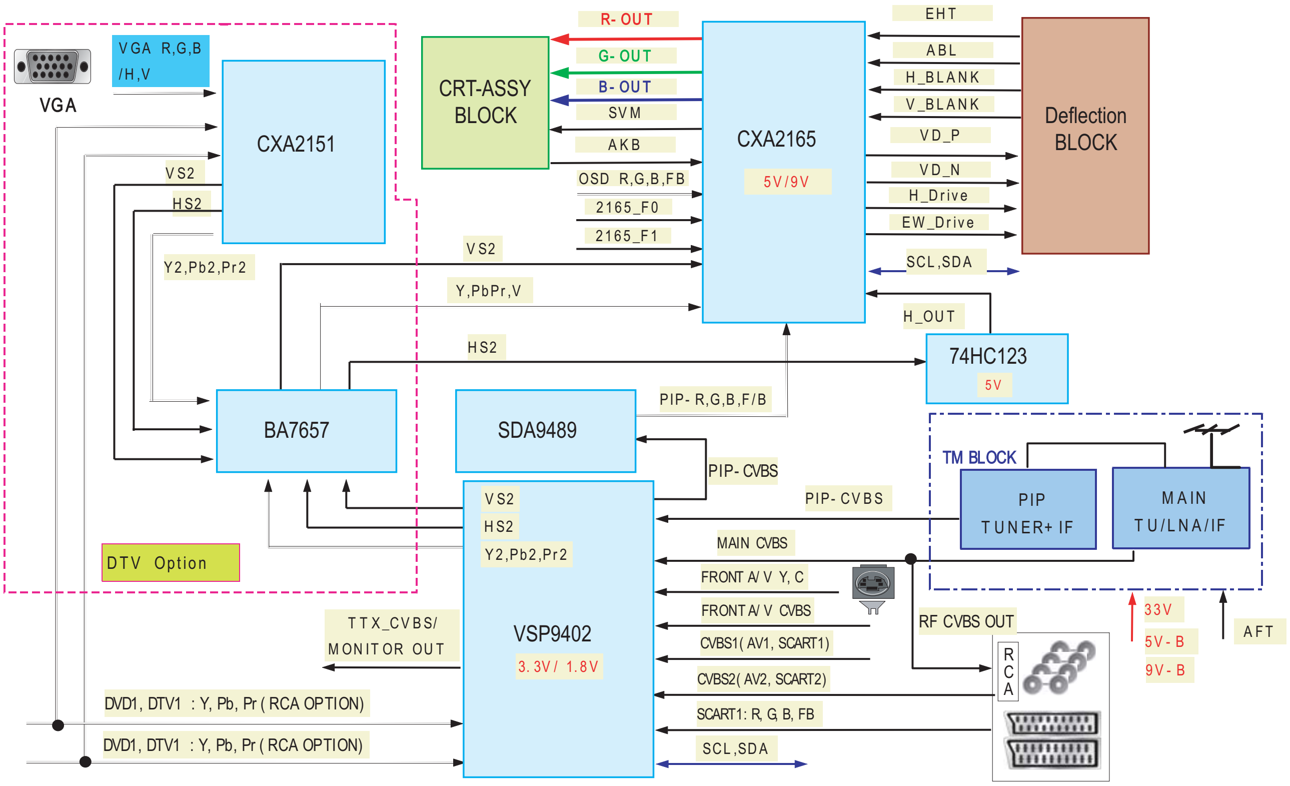

MAIN BOARD
1080i
on/off
deflection
connection
142V,B+
15V,B+
5V,B+ 9V,B+
S-mute
power
relay
main
connection
S5V,B+
16V,B+
7.5V,B+
Bridge
Diode
STR
X6757
D
OVP
OLP
Vcc
F/back
18V
?? V
Main TRANS
16V,B+
7.5V,B+
16V,B+
142V,B+
PC123Y
S-mute1
1080i
15V-B
S-mute2
S-mute1
SOUND
AMP
TDA7297
MAIN L,L-
MAIN R,R+
STN TRANS
Viper
12ADIP
23V
S5V,B+
Line
Filter
AC input
PFC
Relay
Degaussing coil
PS
2561
power
relay
S1-ID/S2-ID
SDA/SCL
WP
SDA/SCL
Y/C In
AFT
Y,Pb,Pr
Option)
H/V BLK
A/V,RGB In
RF,Monitor Out
Scart
F-Box
RGB,VM,AKB
Out
Tilt Control
D-Coil Control
Mute Out
EW,VP,VN Out
H-Drive Out
1080i_50 Out
Power
Spot
3.3V
5V-C,5V-D
9V
12V
MSCL,MSDA
RF CVBS
PIP CVBS
RF OUT
AFT
TM
BLOCK
33V
5V-B

7-2 Partial Block Diagram

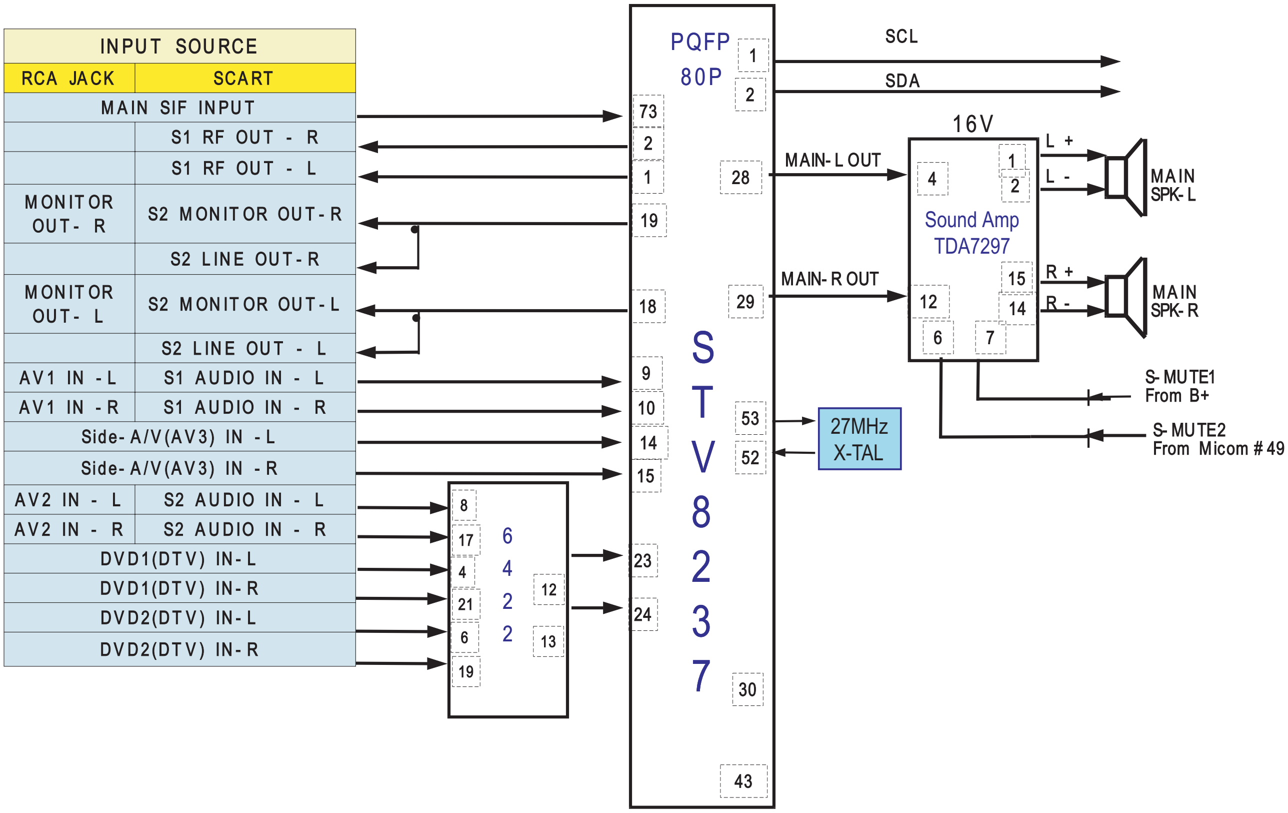
7-2-1 Micom Block Diagram


POWER
AFT
IR
T-LED
S-LED
Relay
S-reset
W/P
KEY1,2
TILT
1080I
OSD R,G,B,FB
2165_F0
2165_F1
H_BLK
V_BLK
VGA_H
TTX_CVBS
S-mute2
SC1,2-ID
iDTV_SW
iDTV_Rx
iDTV_Tx
SC-ID
SDA5550
1. MICOM
2. TTX
Data(0~7bit)
Add(0~18bit)
SCL1,SDA1
ROM($)
M27WC201
EXT.ROM
3.3V_F
Data(0~7bit)
Add(0~18bit)
SDRAM($)
K6R4008C
FOR OSD/TTX
STD 5V
For Micom Block
SCL2,SDA2
EEPROM($)
24WC16
SCL1,SDA1
FDC6310
5V—>3. 3V
MSCL,MSDA
3.3V_F
REG
78RM330
2.5V_A
1N4004

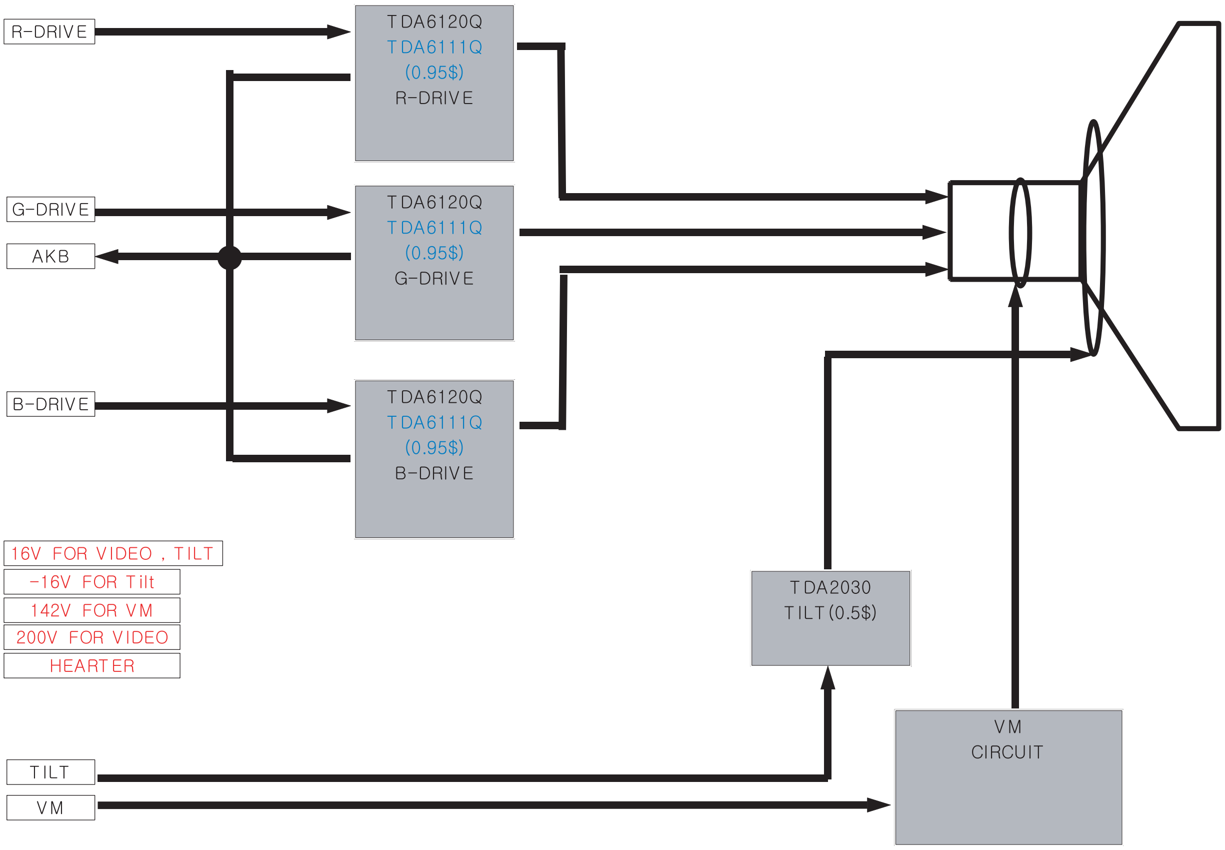
7-2-2 Video Block Diagram


VGA
VGA R,G,B
/H,V
CXA2151
VS2
HS2
Y2,Pb2,Pr2
CRT-ASSY
BLOCK
R-OUT
G-OUT
B-OUT
SVM
AKB
OSD R,G,B,FB
2165_F0
2165_F1
VS2
Y,PbPr,V
HS2
CXA2165
5V/9V
EHT
ABL
H_BLANK
V_BLANK
VD_P
VD_N
H_Drive
EW_Drive
SCL,SDA
H_OUT
Deflection
BLOCK
74HC123
5V
BA7657
SDA9489
PIP-R,G,B,F/B
PIP-CVBS
PIP-CVBS
TM BLOCK
PIP
TUNER+IF
MAIN
TU/LNA/IF
DTV Option
VS2
HS2
Y2,Pb2,Pr2
MAIN CVBS
FRONT A/V Y, C
FRONT A/V CVBS
CVBS1(AV1, SCART1)
CVBS2(AV2, SCART2)
SCART1: R, G, B, FB
SCL,SDA
VSP9402
3.3V/ 1.8V
TTX_CVBS/
MONITOR OUT
DVD1, DTV1 : Y, Pb, Pr (RCA OPTION)
DVD1, DTV1 : Y, Pb, Pr (RCA OPTION)
RF CVBS OUT
RCA
33V
5V-B
9V-B
AFT

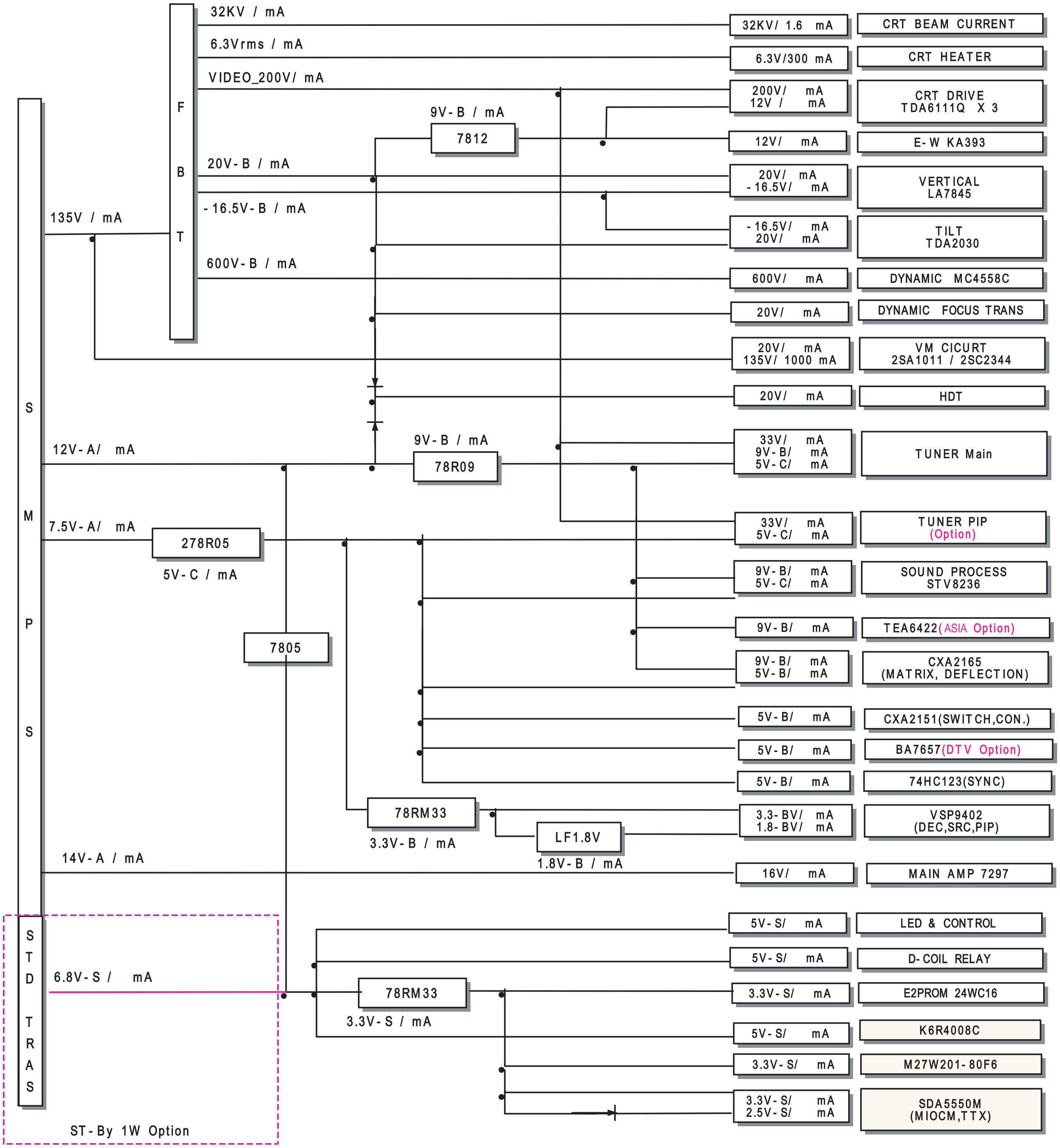
7-2-3 Sound Block Diagram


INPUT SOURCE
RCA JACK
SCART
MAIN SIF INPUT
S1 RF OUT - R
S1 RF OUT - L
MONITOR OUT- R
S2 MONITOR OUT-R
S2 LINE OUT-R
MONITOR OUT- L
S2 MONITOR OUT-L
S2 LINE OUT - L
AV1 IN -L
S1 AUDIO IN - L
AV1 IN -R
S1 AUDIO IN - R
Side-A/V(AV3) IN -L
Side-A/V(AV3) IN -R
AV2 IN - L
S2 AUDIO IN - L
AV2 IN - R
S2 AUDIO IN - R
DVD1(DTV) IN-L
DVD1(DTV) IN-R
DVD2(DTV) IN-L
DVD2(DTV) IN-R
6422
8
17
4
21
6
19
12
13
PQFP 80P
STV8237
73
2
1
19
18
9
10
14
15
23
24
1
2
28
29
53
52
30
43
SCL
SDA
MAIN-L OUT
MAIN-R OUT
27MHz X-TAL
16V
Sound Amp TDA7297
4
12
1
2
15
14
6
7
L +
L -
R +
R -
MAIN SPK-L
MAIN SPK-R
S-MUTE1 From B+
S-MUTE2 From Micom #49

7-2-4 CRT Diagram


R-DRIVE
G-DRIVE
AKB
B-DRIVE
TDA6120Q
TDA6111Q
(0.95$)
R-DRIVE
TDA6120Q
TDA6111Q
(0.95$)
G-DRIVE
TDA6120Q
TDA6111Q
(0.95$)
B-DRIVE
16V FOR VIDEO , TILT
-16V FOR Tilt
142V FOR VM
200V FOR VIDEO
HEARTER
TDA2030
TILT(0.5$)
VM CIRCUIT
TILT
VM

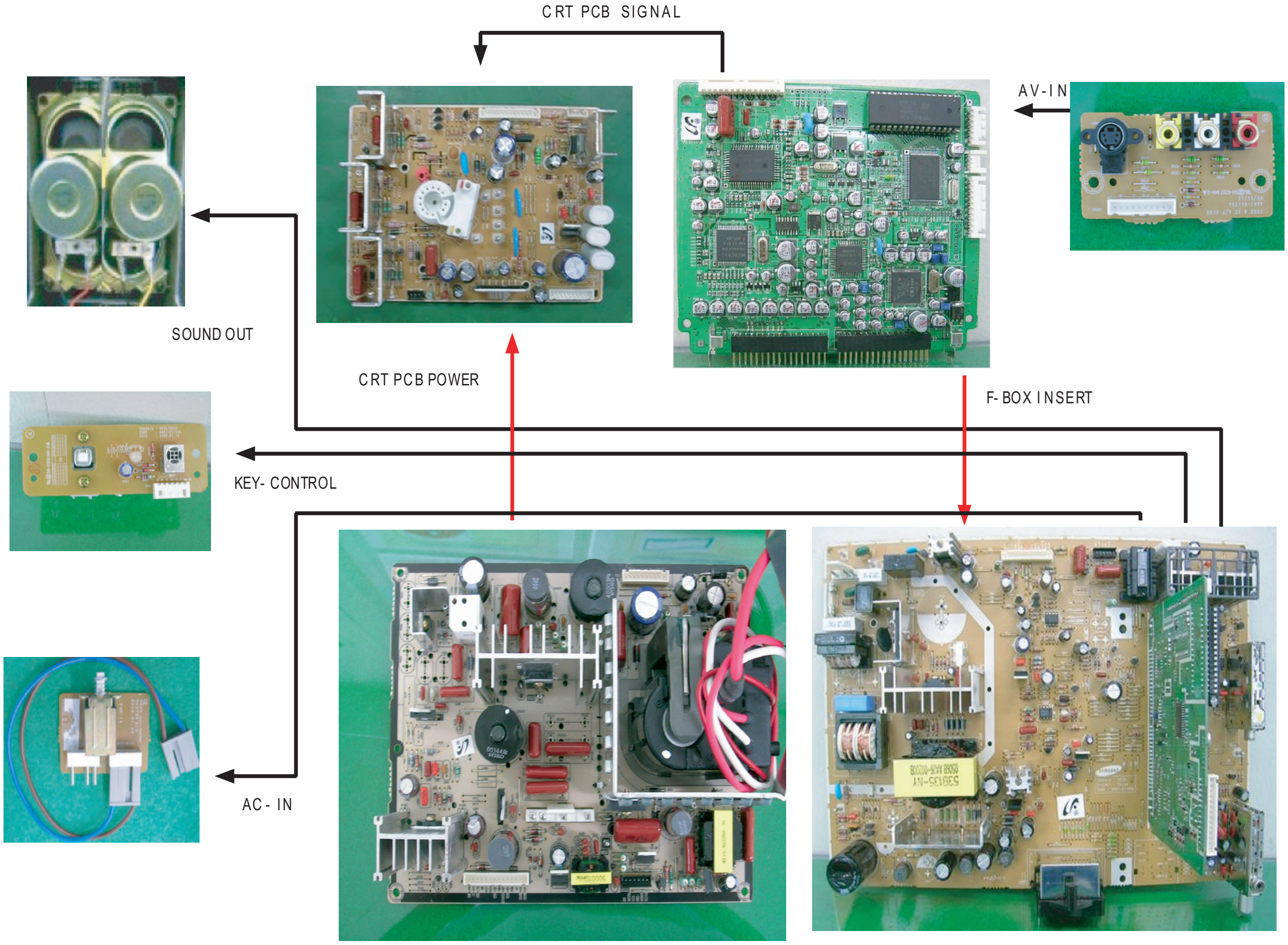
7-3 Power current block diagram


FBT
SMPS
STD TRAS
135V / mA
32KV / mA
6.3Vrms / mA
VIDEO_200V/ mA
9V-B / mA
7812
20V-B / mA
-16.5V-B / mA
600V-B / mA
12V-A/ mA
9V-B / mA
78R09
7.5V-A/ mA
278R05
5V-C / mA
7805
78RM33
3.3V-B / mA
LF1.8V
1.8V-B / mA
14V-A / mA
6.8V-S / mA
78RM33
3.3V-S / mA
ST-By 1W Option
32KV/ 1.6 mA
CRT BEAM CURRENT
6.3V/300 mA
CRT HEATER
200V/ mA
12V / mA
CRT DRIVE
TDA6111Q X 3
12V/ mA
E-W KA393
20V/ mA
-16.5V/ mA
VERTICAL
LA7845
-16.5V/ mA
20V/ mA
TILT
TDA2030
600V/ mA
DYNAMIC MC4558C
20V/ mA
DYNAMIC FOCUS TRANS
20V/ mA
135V/ 1000 mA
VM CICURT
2SA1011 / 2SC2344
20V/ mA
HDT
33V/ mA
9V-B/ mA
5V-C/ mA
TUNER Main
33V/ mA
5V-C/ mA
TUNER PIP
(Option)
9V-B/ mA
5V-C/ mA
SOUND PROCESS
STV8236
9V-B/ mA
TEA6422(ASIA Option)
9V-B/ mA
5V-B/ mA
CXA2165
(MATRIX, DEFLECTION)
5V-B/ mA
CXA2151(SWITCH,CON.)
5V-B/ mA
BA7657(DTV Option)
5V-B/ mA
74HC123(SYNC)
3.3-BV/ mA
1.8-BV/ mA
VSP9402
(DEC,SRC,PIP)
16V/ mA
MAIN AMP 7297
5V-S/ mA
LED & CONTROL
5V-S/ mA
D-COIL RELAY
3.3V-S/ mA
E2PROM 24WC16
5V-S/ mA
K6R4008C
3.3V-S/ mA
M27W201-80F6
3.3V-S/ mA
2.5V-S/ mA
SDA5550M
(MIOCM,TTX)

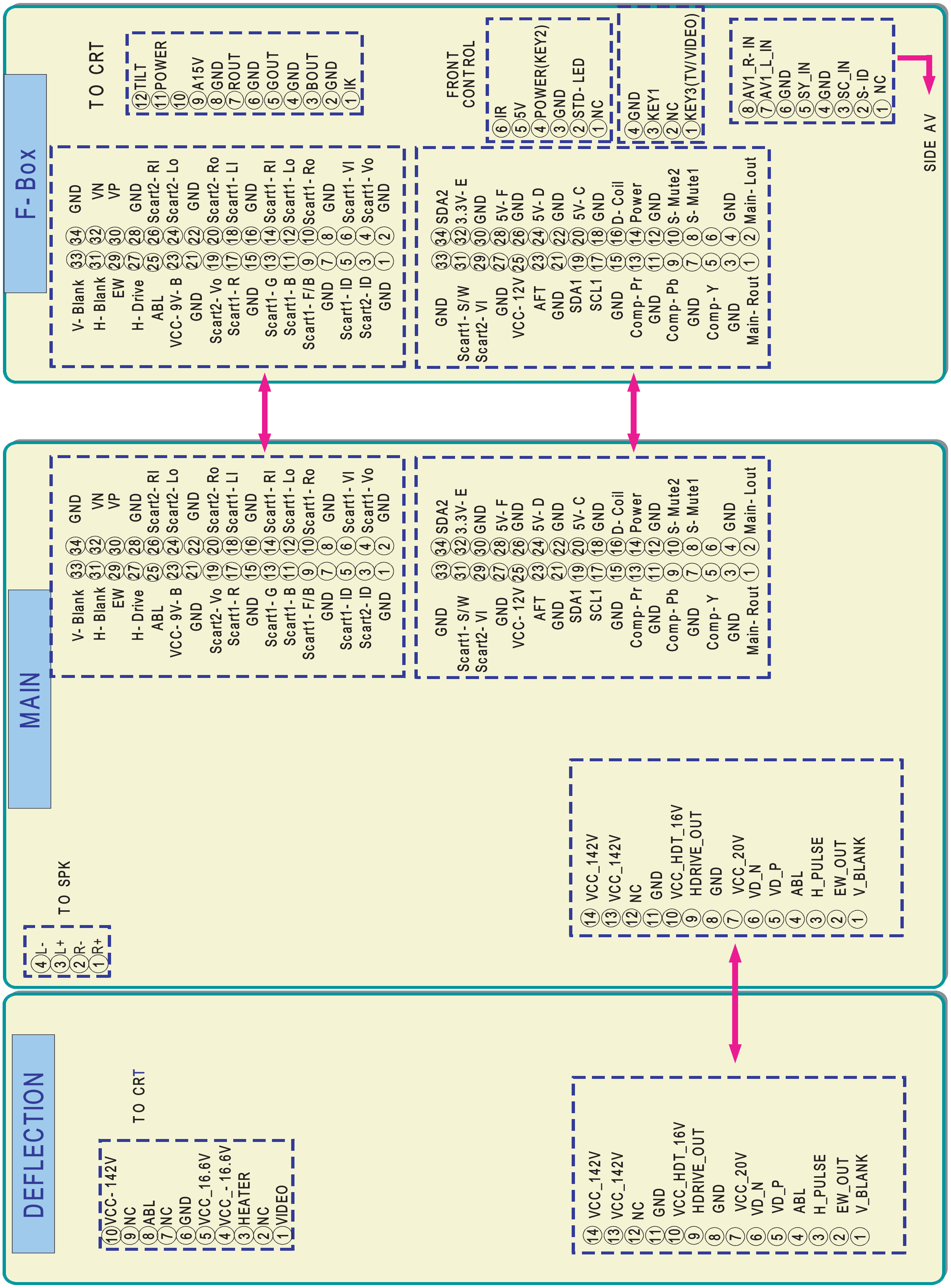
MEMO

8. Wiring Diagram

8-1 Overall Wiring


CRT PCB SIGNAL
AV-IN
SOUND OUT
CRT PCB POWER
F-BOX INSERT
KEY- CONTROL
AC - IN

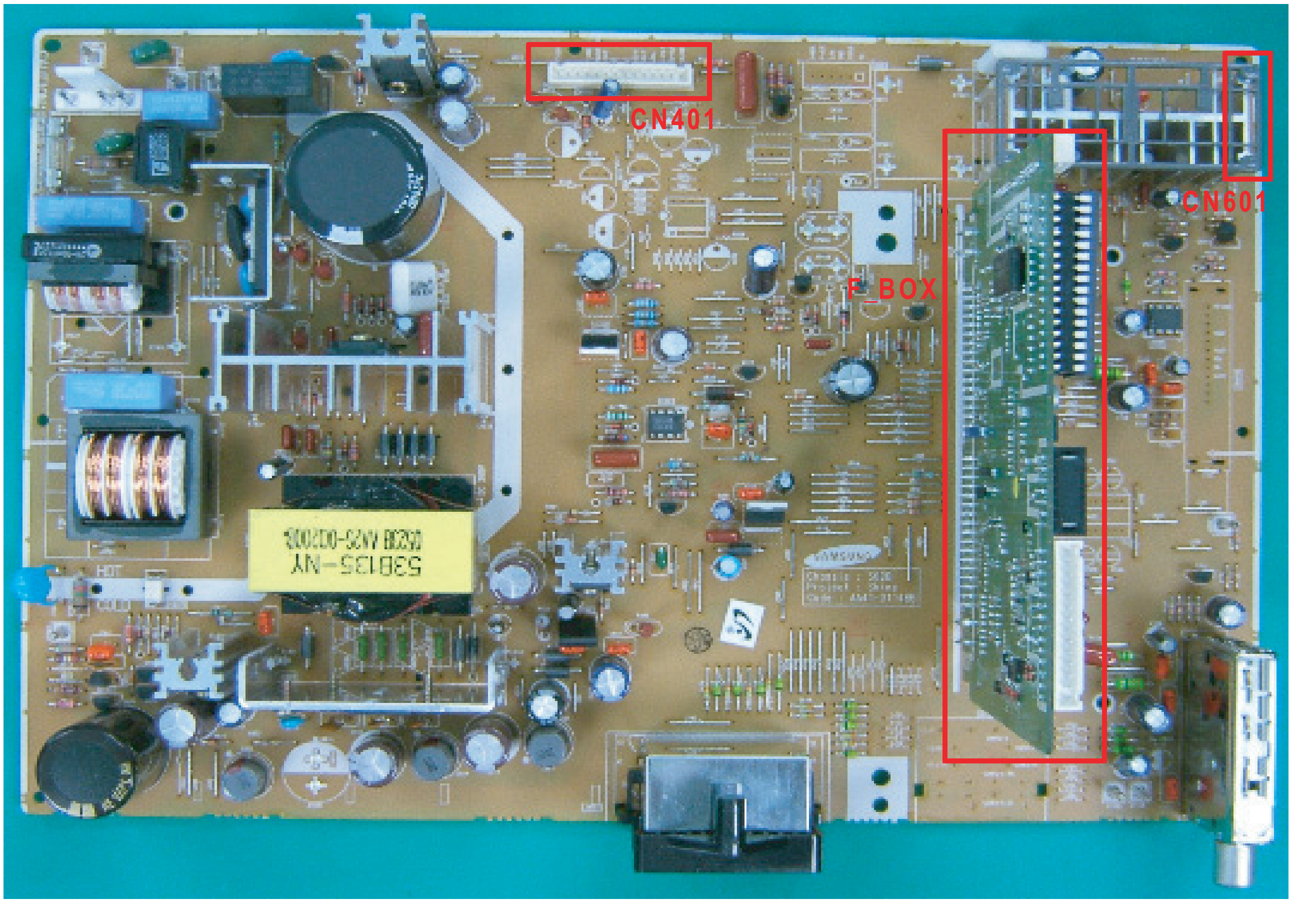
8-2 Pin Connection


F-Box
TO CRT
12 TILT
11 POWER
10
9 A15V
8 GND
7 ROUT
6 GND
5 GOUT
4 GND
3 BOUT
2 GND
1 IK
FRONT CONTROL
6 IR
5 5V
4 POWER(KEY2)
3 GND
2 STD-LED
1 NC
4 GND
3 KEY1
2 NC
1 KEY3(TV/VIDEO)
8 AV1_R-IN
7 AV1_L_IN
6 GND
5 SY_IN
4 GND
3 SC_IN
2 S-ID
1 NC
SIDE AV
V-Blank 33 34 GND
H-Blank 31 32 VN
EW 29 30 VP
H-Drive 27 28 GND
ABL 25 26 Scart2-RI
VCC-9V-B 23 24 Scart2-Lo
GND 21 22 GND
Scart2-Vo 19 20 Scart2-Ro
Scart1-R 17 18 Scart1-LI
GND 15 16 GND
Scart1-G 13 14 Scart1-RI
Scart1-B 11 12 Scart1-Lo
Scart1-F/B 9 10 Scart1-Ro
GND 7 8 GND
Scart1-ID 5 6 Scart1-VI
Scart2-ID 3 4 Scart1-Vo
GND 1 2 GND
GND 33 34 SDA2
Scart1-S/W 31 32 3.3V-E
Scart2-VI 29 30 GND
GND 27 28 5V-F
VCC-12V 25 26 GND
AFT 23 24 5V-D
GND 21 22 GND
SDA1 19 20 5V-C
SCL1 17 18 GND
GND 15 16 D-Coil
Comp-Pr 13 14 Power
GND 11 12 GND
Comp-Pb 9 10 S-Mute2
GND 7 8 S-Mute1
Comp-Y 5 6
GND 3 4 GND
Main-Rout 1 2 Main-Lout
MAIN
V-Blank 33 34 GND
H-Blank 31 32 VN
EW 29 30 VP
H-Drive 27 28 GND
ABL 25 26 Scart2-RI
VCC-9V-B 23 24 Scart2-Lo
GND 21 22 GND
Scart2-Vo 19 20 Scart2-Ro
Scart1-R 17 18 Scart1-LI
GND 15 16 GND
Scart1-G 13 14 Scart1-RI
Scart1-B 11 12 Scart1-Lo
Scart1-F/B 9 10 Scart1-Ro
GND 7 8 GND
Scart1-ID 5 6 Scart1-VI
Scart2-ID 3 4 Scart1-Vo
GND 1 2 GND
GND 33 34 SDA2
Scart1-S/W 31 32 3.3V-E
Scart2-VI 29 30 GND
GND 27 28 5V-F
VCC-12V 25 26 GND
AFT 23 24 5V-D
GND 21 22 GND
SDA1 19 20 5V-C
SCL1 17 18 GND
GND 15 16 D-Coil
Comp-Pr 13 14 Power
GND 11 12 GND
Comp-Pb 9 10 S-Mute2
GND 7 8 S-Mute1
Comp-Y 5 6
GND 3 4 GND
Main-Rout 1 2 Main-Lout
TO SPK
4 L-
3 L+
2 R-
1 R+
14 VCC_142V
13 VCC_142V
12 NC
11 GND
10 VCC_HDT_16V
9 HDRIVE_OUT
8 GND
7 VCC_20V
6 VD_N
5 VD_P
4 ABL
3 H_PULSE
2 EW_OUT
1 V_BLANK
DEFLECTION
TO CRT
10 VCC-142V
9 NC
8 ABL
7 NC
6 GND
5 VCC_16.6V
4 VCC_-16.6V
3 HEATER
2 NC
1 VIDEO
14 VCC_142V
13 VCC_142V
12 NC
11 GND
10 VCC_HDT_16V
9 HDRIVE_OUT
8 GND
7 VCC_20V
6 VD_N
5 VD_P
4 ABL
3 H_PULSE
2 EW_OUT
1 V_BLANK

9. PCB Diagram

9-1 Main Board

9-1-1 Assy Main Board



■ The System Board that Controls Various Signals for Video Signal Processing and Product Operations

9-1-2 Names & Roles of Key Parts

- * CN601 : This is a 4 pin port connected to the Speaker, and sends the signal from the AMP to the speakers.
- * CN401 : This is a 14 pin port connected to the Deflection Board and supplies 135V, 16V and receives 20V voltage and the power on and off signals to the Deflection Board
- * GT804 : This is a ground port to prevent high voltage due to lightning and is connected to the Deflection Board.
- * CN802 : This is a 3 pin port connected to the AC power cable. It is connected to the power cable socket.
- * GT805, GT806 : This is a port connected to the D-Coil surrounding the CRT.

9-1-3 Main Board Connector Pin

CN401
Connected to the Deflection Board

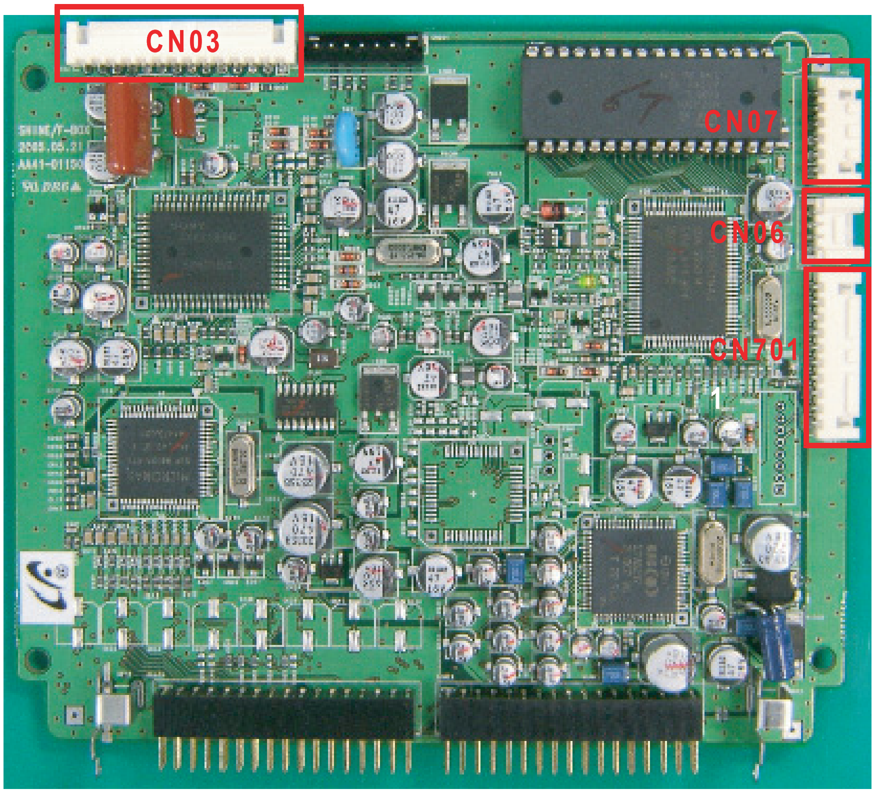
PIN No.	Pin Name
1	V_BLANK
2	EW_OUT
3	H_PULSE
4	ABL
5	VD_P
6	VD_N
7	VCC_20V
8	GND
9	HDRIVE_OUT
10	VCC_HTD_16V
11	GND
12	NC
13	VCC_142V
14	VCC_142V

CN601
Connected to the Speaker Port

PIN No.	Pin Name
1	R+
2	R-
3	L+
4	L-

9-2 Feature Box Board

9-2-1 Assy Feature Box Board



■ This controls the path of the electron beams from the CRT electron guns using the deflection coil.

9-2-2 Names & Roles of Key Parts

* CN03 : This is a 14 pin port connected to the CRT Assy's, and outputs final R/G/B signals to the CRT Ass'y.
In addition, it outputs the Tilt, VM, and Power signals for the CRT Drive.
* CN07 : This is a 6 pin port connected to the Master Ass'y, and receives Master Power On/Off, and IR signals.
* CN06 : This is a 4 pin port connected to the Control Ass'y, and receives TV/Video, Menu, Ch Up/Down and Vol -/+ signals.
* CN701 : This is a 10 pin port connected to the Side AV, and receives S-Video2 and AV4 external inputs.

9-2-3 Feature Box Board Connector Pin

CN03
Connected to the CRT Ass'y

PIN No.	Pin Name
1	TILT
2	POWER
3	GND
4	VM
5	12V-A
6	12V-B
7	GND
8	R-OUT
9	GND
10	G-OUT
11	GND
12	B-OUT
13	GND
14	IK

CN07
Connected to the Master Ass'y

PIN No.	Pin Name
1	NC
2	STD-LED
3	GND
4	KEY2
5	5V
6	IR

CN06
Connected to the Control Ass'y

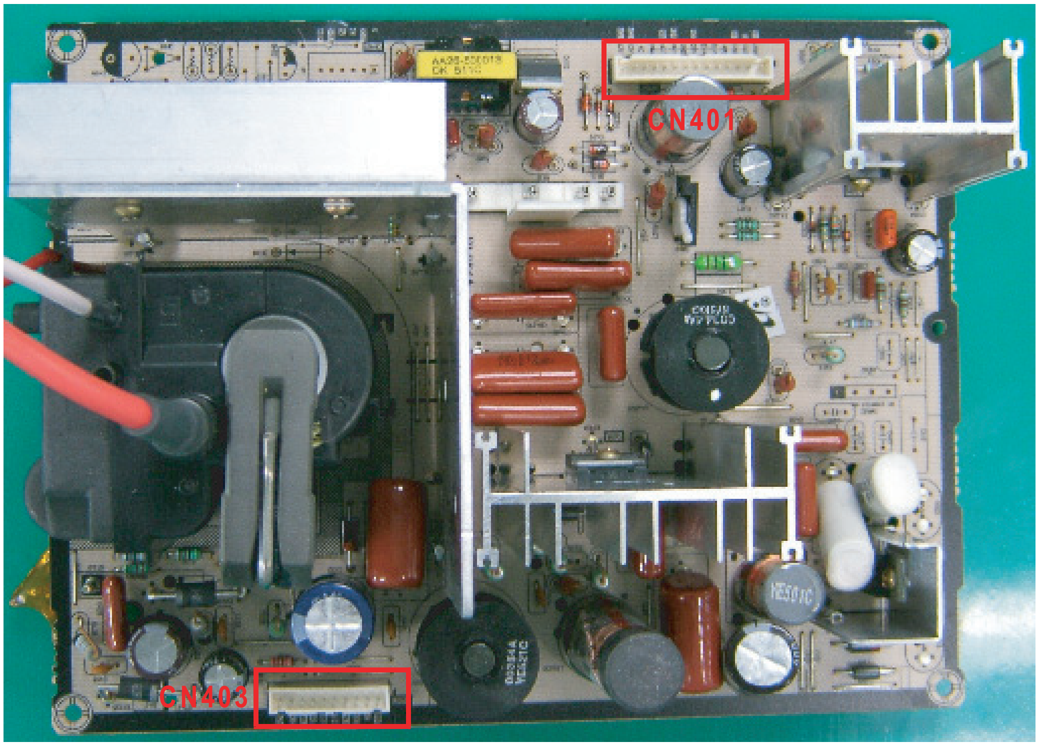
PIN No.	Pin Name
1	KEY3
2	A10
3	KEY1
4	GND

CN701
Connected to the Side AV Port

PIN No.	Pin Name
1	S-Y2
2	GND
3	S-C2
4	GND
5	AV
6	GND
7	AV4-L
8	GND
9	AV4-R
10	GND

9-3 Deflection Board

9-3-1 Assy Deflection Board



- The Assy Power Board supplies DC power. This supplies power to the System and the Deflection Board.

9-3-2 Names & Roles of Key Parts

* CN401 : This is a 14 pin port connected to the Main Board and is supplied 135V, 16V power by the Main Board and the power on and off signal.
* CN403 : This is a 10 pin port connected to the CRT Ass'y, and supplies power for the CRT and R/G/B signal amplifying AMP.

9-3-3 Deflection Board Connector Pin

CN401
Connected to the Main Board

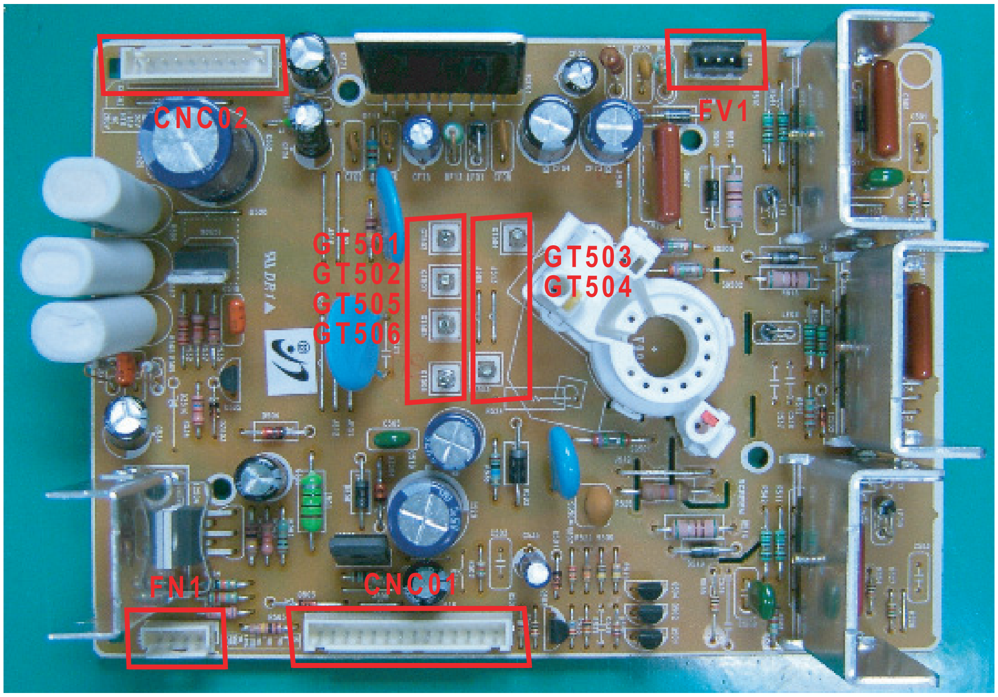
PIN No.	Pin Name
1	V_BLANK
2	EW_OUT
3	H_PULSE
4	ABL
5	VD_P
6	VD_N
7	VCC_20V
8	GND
9	HDRIVE_OUT
10	VCC_HTD_16V
11	GND
12	NC
13	VCC_142V
14	VCC_142V

CN403
Connected to the CRT Ass'y

PIN No.	Pin Name
1	VCC_200V
2	NC
3	HEATER
4	VCC_-16.5V
5	VCC_20V
6	GND
7	NC
8	ABL
9	NC
10	VCC_135V
11	
12	
13	
14	

9-4 CRT Board

9-4-1 Assy CRT Board



■ CRT Drive
This supplies the final R/G/B signal from the F-Box and the CRT deflection signal to the CRT

9-4-2 Names & Roles of Key Parts

⋆ GT503, GT504, GT505, GT506 : This is a port for countermeasures against compulsory discharges and is connected to the Power Board.
* GT503, GT504 : This is a port connected to the TBC-Wire and plays the role of CRT ground.
* CNC01 : This is a port to receive the R/G/B output signals from the System Board.
* CNC02 : This is a port that receives power for the CRT and AMP from the Deflection Board.
* FV1 : A port to connect the VM signal to the DY Ass'y.
* FN1 : A port to connect signals to the Tilt Coil and is required for the screen slant adjustment.

9-4-3 CRT Board Connector Pin

CNC01
Connects the R/G/B signal from the System Board

PIN No.	Pin Name
1	IK
2	GND
3	B
4	GND
5	G
6	GND
7	R
8	GND
9	15V
10	VM
11	PWR
12	TLT

CNC02
Connects the power from the Deflection Board

PIN No.	Pin Name
1	VCC-200V
2	NC
3	HEATER
4	VCC_-16.5V
5	VCC_20V
6	GND
7	NC
8	ABL
9	NC
10	VCC_142V
11	
12	

FV1
Connects the VM signal to the DY Ass'y

PIN No.	Pin Name
1	VM
2	NC
3	VM

FN1
Connects the signal to the Tilt Coil

PIN No.	Pin Name
1	GND
2	GND
3	TILT
4	TILT

10. Schematic Diagram

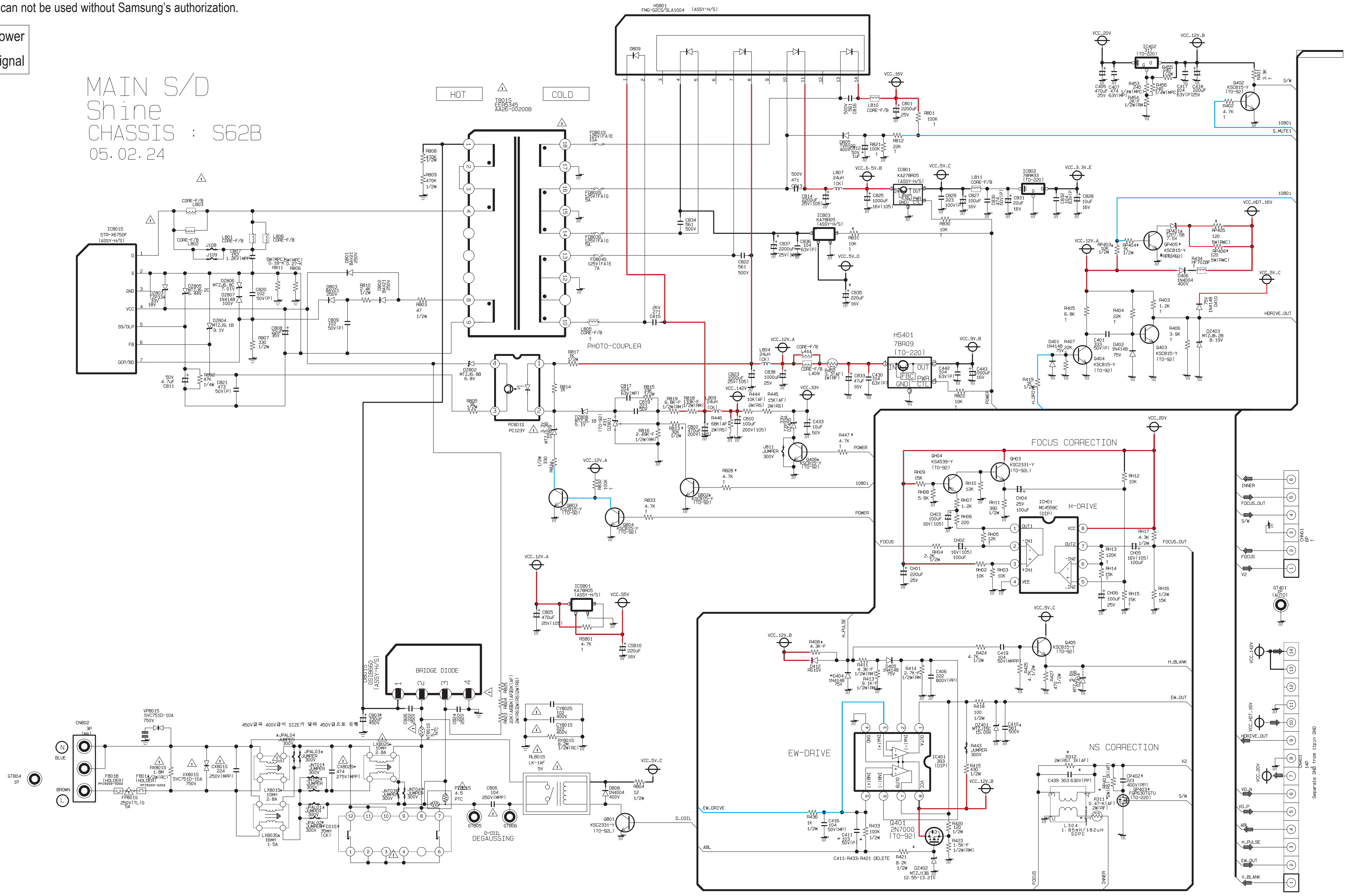
10-1 MAIN

10-1-1 MAIN 1

This Document can not be used without Samsung's authorization.

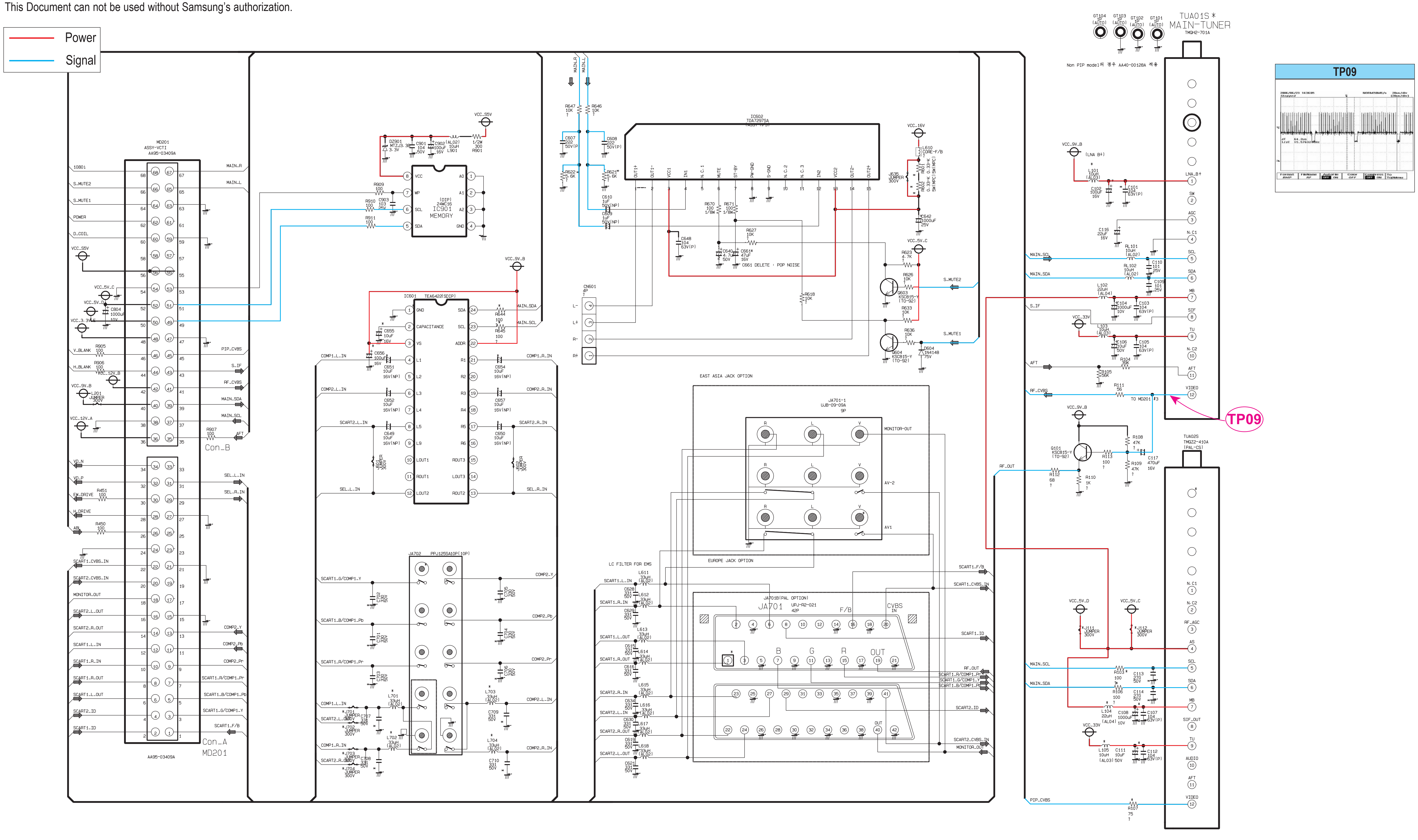
Power

Signal


MAIN S/D
Shine
CHASSIS : S62B
05.02.24
HS801
HOT
COLD
T801S
IC801S
STR-X6750F
PHOTO-COUPLER
PC801S
BRIDGE DIODE
CN802
DEGAUSSING
FOCUS CORRECTION
H-DRIVE
EW-DRIVE
NS CORRECTION
HS401
78R09
IC801
IC802
IC803
IC402
CN401
ICH01
MC4558C
IC401
Q401
2N7000
450V급과 400V급이 SIZE가 달라 450V급으로 진행
Separate GND from 11pin GND

10-1-2 MAIN 2

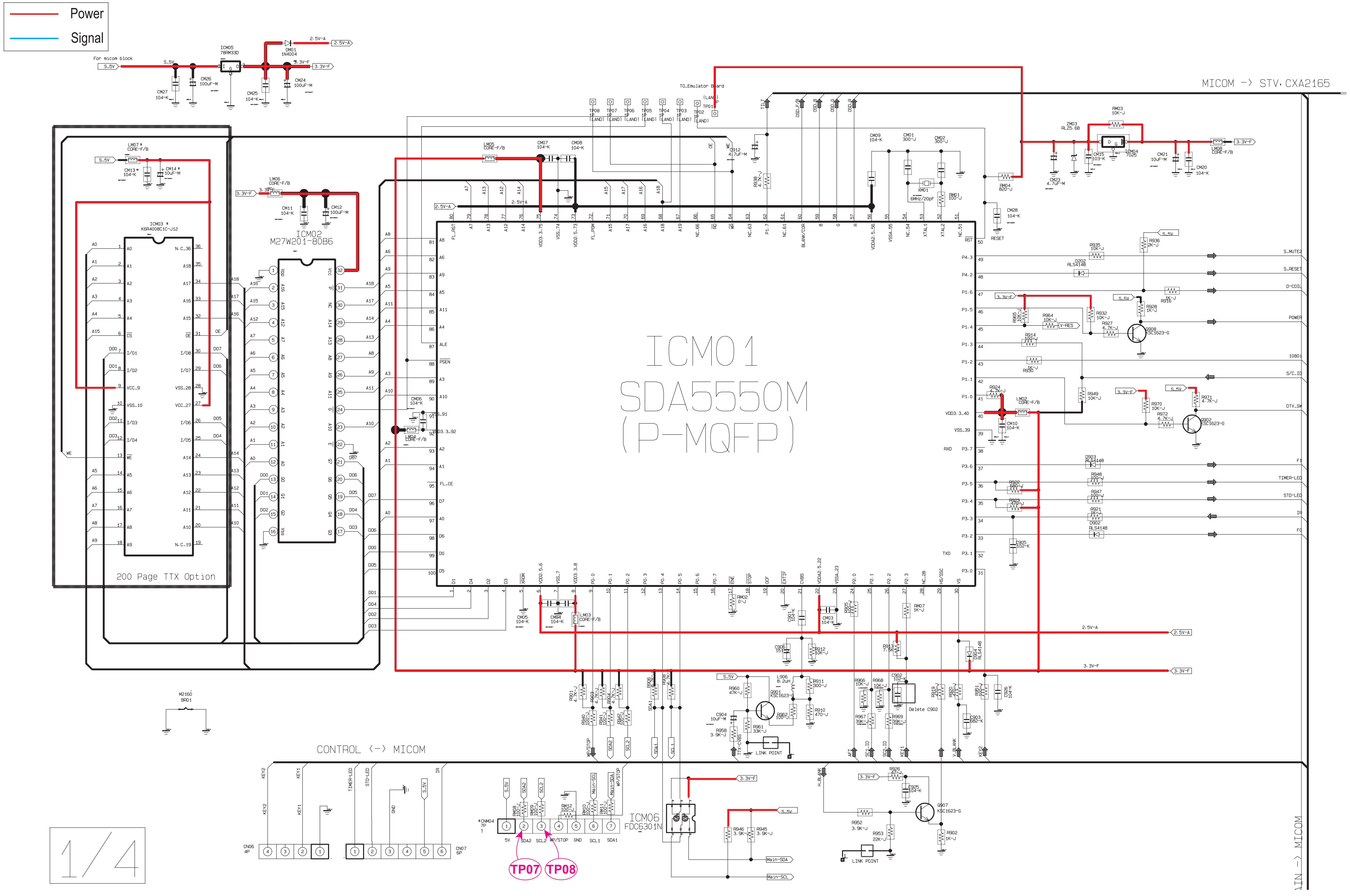
This Document can not be used without Samsung's authorization.


Power
Signal
MD201
ASSY-VCTI
AA95-03409A
Con_B
Con_A
MD201
IC901
24WC16
MEMORY
IC601
TEA6422(SDIP)
IC602
TDA7297SA
JA702
PPJ125SA10P(10P)
EAST ASIA JACK OPTION
JA701-1
UJB-09-09A
MONITOR-OUT
AV-2
AV1
EUROPE JACK OPTION
JA701B(PAL OPTION)
JA701
F/B
CVBS IN
LC FILTER FOR EMS
CN601
4P
TUA01S *
MAIN-TUNER
TMQH2-701A
TUA02S
TMQZ2-410A
(PAL-CS)
TP09
VCC_5V
VCC_9V_B
VCC_16V
VCC_5V_C
VCC_3.3V
VCC_12V_A
VCC_5V_D
S_MUTE1
S_MUTE2
MAIN_SCL
MAIN_SDA
SCART1_CVBS_IN
SCART2_CVBS_IN
MONITOR_OUT
RF_CVBS
PIP_CVBS
RF_OUT
AFT
S_IF
C661 DELETE : POP NOISE
TO MD201 #3

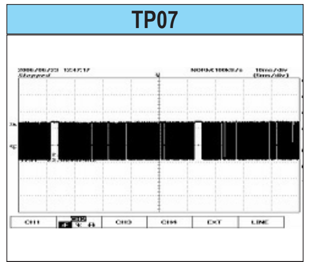
10-2 Feature Box

10-2-1 Feature Box 1

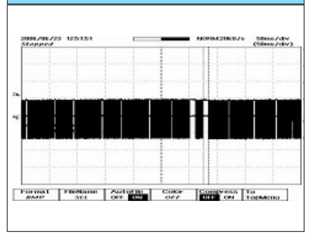
This Document can not be used without Samsung's authorization.


Power
Signal
For micom block
S_5V
ICM05 78RM33D
DM01 1N4004
2.5V-A
3.3V-F
CM24 100uF-M
CM25 104-K
CM26 100uF-M
CM27 104-K
LM07 CORE-F/B
CM13 104-K
CM14 10uF-M
LM06 CORE-F/B
CM11 104-K
CM12 100uF-M
ICM03 K6R4008C1C-J12
ICM02 M27W201-80B6
200 Page TTX Option
TO_Emulator Board
TP01 TP02 TP03 TP04 TP05 TP06 TP07 TP08
ICM01
SDA5550M
(P-MQFP)
MICOM -> STV.CXA2165
XM01 6MHz/20pF
RESET
S_MUTE2
S_RESET
D-COIL
POWER
1080i
S/C_ID
DTV_SW
F1
TIMER-LED
STD-LED
IR
F0
2.5V-A
3.3V-F
LINK POINT
Delete C902
CONTROL <-> MICOM
ICM06 FDC6301N
Main-SDA
Main-SCL
CN06 4P
CN07 6P
CNM04 7P
5V SDA2 SCL2 WP/STOP GND SCL1 SDA1
TP07 TP08
M2160 BR01
AIN -> MICOM
1/4

TP07

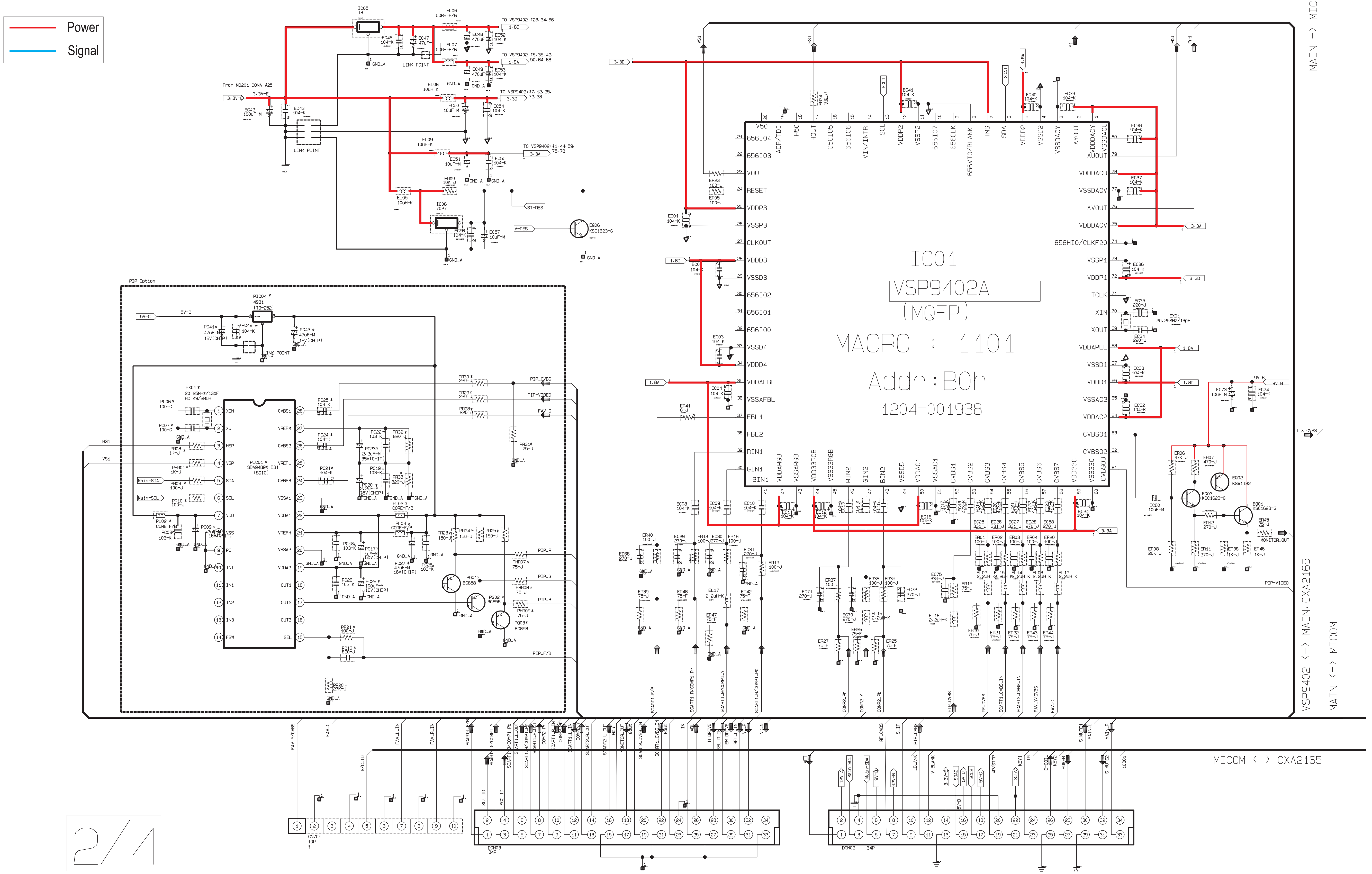


TP08



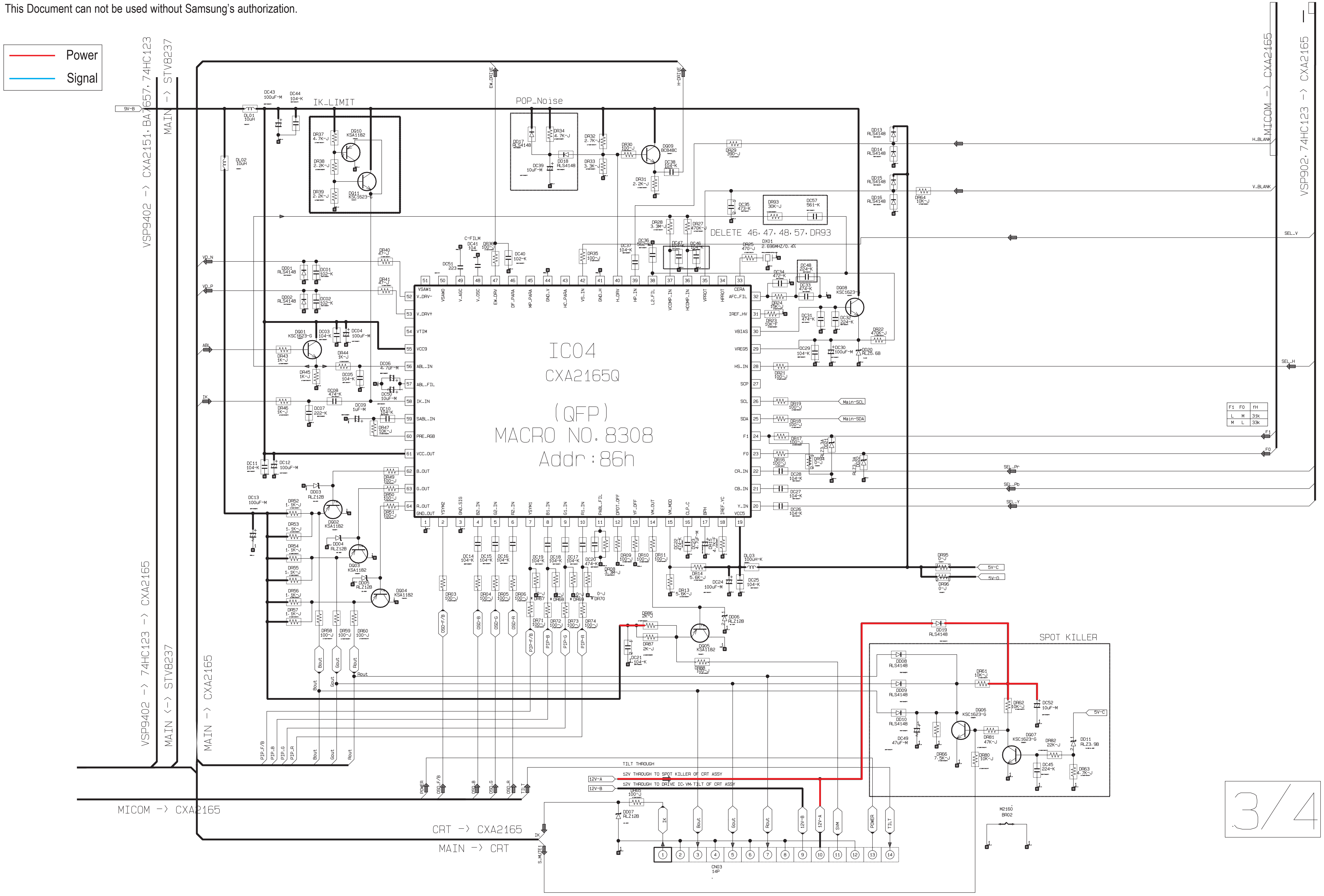
10-2-2 Feature Box 2

This Document can not be used without Samsung's authorization.


Power
Signal
IC05 18
EL06 CORE-F/B
TO VSP9402:#28.34.66
1.8D
TO VSP9402:#5.35.42.50.64.68
1.8A
LINK POINT
From MD201 CONA #25
3.3V-E
TO VSP9402:#7.12.25.72.38
3.3D
TO VSP9402:#1.44.59.75.78
3.3A
IC06 7027
EQ06 KSC1623-G
ST-RES
V-RES
GND_A
IC01
VSP9402A
(MQFP)
MACRO : 1101
Addr : B0h
1204-001938
V50
RESET
VOUT
CLKOUT
TTX-CVBS
MONITOR_OUT
PIP-VIDEO
EQ01 KSC1623-G
EQ02 KSA1182
EQ03 KSC1623-G
EX01 20.25MHz/13pF
PIP Option
PIC04 4931 (TO-252)
5V-C
PX01 20.25MHz/13pF HC-49/SMSH
PIC01 SDA9489X-B31 (SOIC)
XIN
XQ
HSP
VSP
SDA
SCL
VDD
VSS
PC
INT
IN1
IN2
IN3
FSW
CVBS1
VREFM
CVBS2
VREFL
CVBS3
VSSA1
VDDA1
VREFH
VSSA2
VDDA2
OUT1
OUT2
OUT3
SEL
Main-SDA
Main-SCL
HS1
VS1
PIP_CVBS
PIP-VIDEO
FAV_C
PIP_R
PIP_G
PIP_B
PIP_F/B
PQ01 BC858
PQ02 BC858
PQ03 BC858
MAIN -> MICOM
VSP9402 <-> MAIN, CXA2165
MAIN <-> MICOM
MICOM <-> CXA2165
CN701 10P
DCN03 34P
DCN02 34P
2/4

10-2-3 Feature Box 3

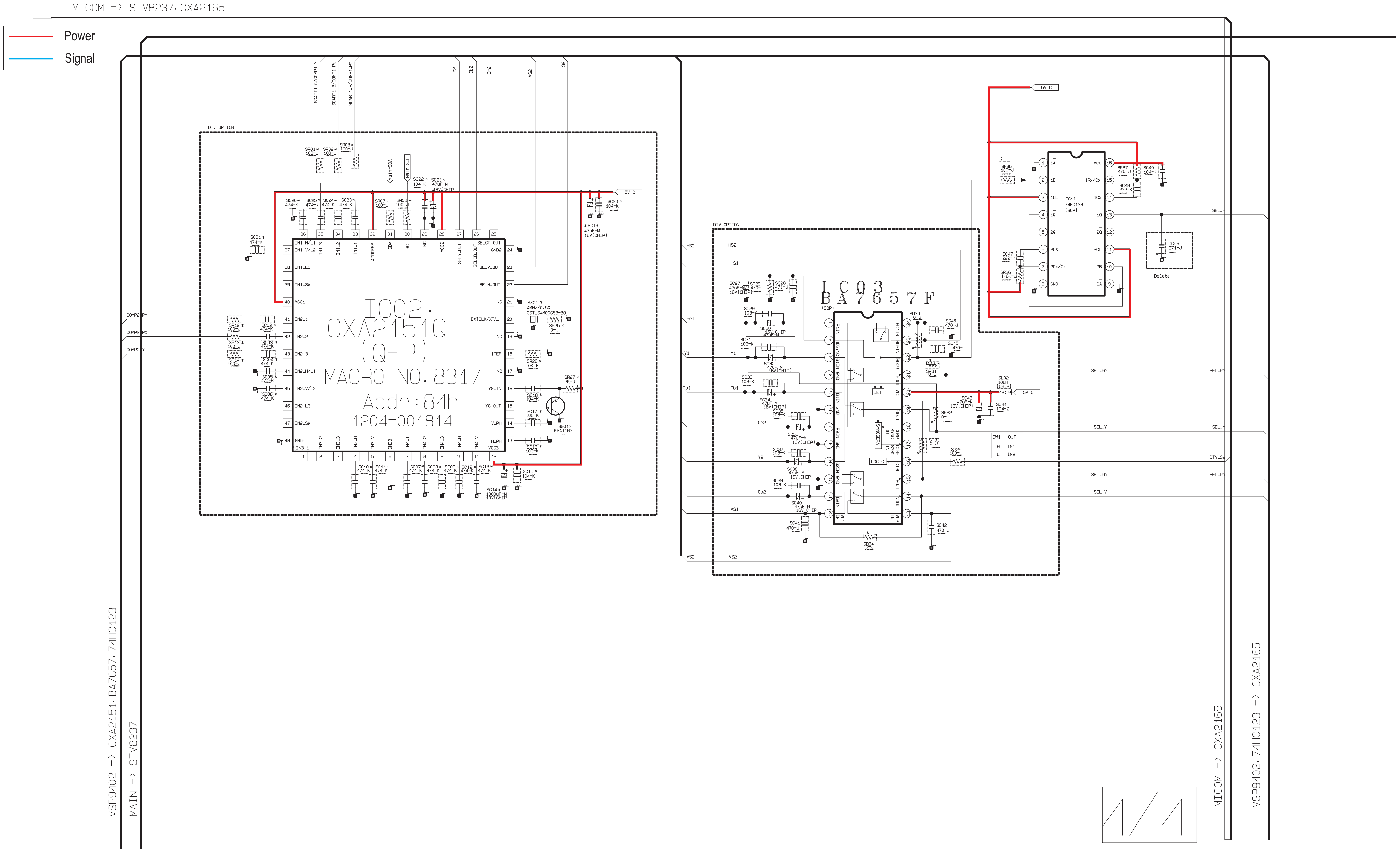
This Document can not be used without Samsung's authorization.


Power
Signal
VSP9402 -> CXA2151, BA7657, 74HC123
MAIN -> STV8237
IK_LIMIT
POP_Noise
DELETE 46, 47, 48, 57, DR93
IC04
CXA2165Q
(QFP)
MACRO NO. 8308
Addr : 86h
SPOT KILLER
MICOM -> CXA2165
VSP902, 74HC123 -> CXA2165
VSP9402 -> 74HC123 -> CXA2165
MAIN <-> STV8237
MAIN -> CXA2165
MICOM -> CXA2165
CRT -> CXA2165
MAIN -> CRT
TILT THROUGH
12V THROUGH TO SPOT KILLER OF CRT ASSY
12V THROUGH TO DRIVE IC-VM-TILT OF CRT ASSY
CN03
14P
H_BLANK
V_BLANK
SEL_V
SEL_H
SEL_Pr
SEL_Pb
SEL_Y
Main-SCL
Main-SDA
5V-C
5V-D
12V-A
12V-B
F1
F0
M2160
BR02
3/4

F1	F0	fH
L	M	31k
M	L	33k

10-2-4 Feature Box 4

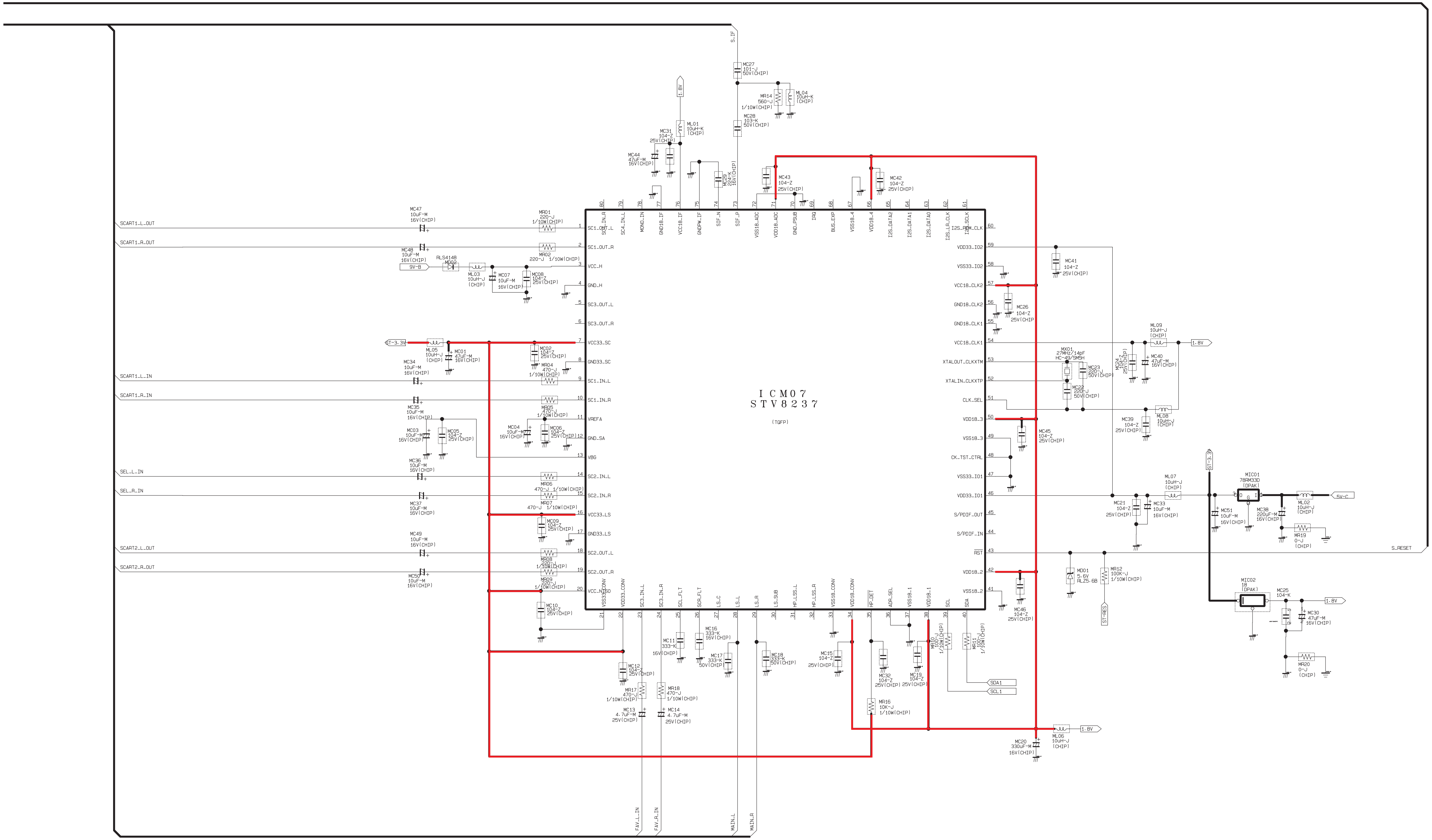
This Document can not be used without Samsung's authorization.


MICOM -> STV8237, CXA2165
Power
Signal
DTV OPTION
SCART1_G/COMP1_Y
SCART1_B/COMP1_Pb
SCART1_R/COMP1_Pr
Y2
Cb2
Cr2
VS2
HS2
5V-C
IC02
CXA2151Q
(QFP)
MACRO NO.8317
Addr:84h
1204-001814
SR01 100-J
SR02 100-J
SR03 100-J
Main-SDA
Main-SCL
SC22 104-K
SC21 47uF-M 16V(CHIP)
SC26 474-K
SC25 474-K
SC24 474-K
SC23 474-K
SR07 100-J
SR08 100-J
SC20 104-K
SC19 47uF-M 16V(CHIP)
SC01 474-K
IN1_H/L1
IN1_V/L2
IN1_L3
IN1_SW
VCC1
IN2_1
IN2_2
IN2_3
IN2_H/L1
IN2_V/L2
IN2_L3
IN2_SW
GND1
IN3_1
IN3_2
IN3_3
IN3_H
IN3_V
GND3
IN4_1
IN4_2
IN4_3
IN4_H
IN4_V
VCC3
H_PH
V_PH
YG_OUT
YG_IN
NC
IREF
EXTCLK/XTAL
SELH_OUT
SELV_OUT
GND2
SELCR_OUT
SELCB_OUT
SELY_OUT
VCC2
SCL
SDA
ADDRESS
IN1_1
IN1_2
IN1_3
COMP2_Pr
COMP2_Pb
COMP2_Y
SR12 100-J
SR13 100-J
SR14 100-J
SC02 474-K
SC03 474-K
SC04 474-K
SC05 474-K
SC06 474-K
SX01 4MHz/0.5% CSTLS4M00G53-B0
SR25 0-J
SR26 10K-F
SR27 2K-J
SC18 104-K
SC17 105-K
SC16 103-K
SQ01 KSA1182
SC10 474-K
SC11 474-K
SC07 474-K
SC08 474-K
SC09 474-K
SC12 474-K
SC13 474-K
SC14 1000uF-M 10V(CHIP)
SC15 104-K
IC03
BA7657F
(SOP)
HS2
HS1
Pr1
Y1
Pb1
Cr2
Y2
Cb2
VS1
VS2
SC27 47uF-M 16V(CHIP)
SR28 470-J
SC28 471-J
SC29 103-K
SC30 47uF-M 16V(CHIP)
SC31 103-K
SC32 47uF-M 16V(CHIP)
SC33 103-K
SC34 47uF-M 16V(CHIP)
SC35 103-K
SC36 47uF-M 16V(CHIP)
SC37 103-K
SC38 47uF-M 16V(CHIP)
SC39 103-K
SC40 47uF-M 16V(CHIP)
SC41 470-J
SC42 470-J
SR34
SR30 0-J
SR31
SR32 0-J
SR33 0-J
SR29 100-J
SC45 470-J
SC43 47uF-M 16V(CHIP)
SC44 104-Z
SL02 10uH (CHIP)
DET
LOGIC
SYNCSEPA
R1IN
HDSYNC
G1IN
GND
B1IN
R2IN
G2IN
B2IN
VD1 IN
VD2 IN
HDOUT
RBOUT
VCC
GOUT
BOUT
CTRL
SW1 | OUT
H | IN1
L | IN2
SEL_H
SR35 100-J
IC11
74HC123
(SOP)
1A
1B
1CL
1Q
2Q
2CX
2Rx/Cx
GND
Vcc
1Rx/Cx
1Cx
2CL
2B
2A
SR37 470-J
SC49 104-K
SC48 222-K
SC47 222-K
SR36 1.6K-J
DC56 271-J
Delete
SEL_H
SEL_Pr
SEL_Y
DTV_SW
SEL_Pb
SEL_V
VSP9402 -> CXA2151, BA7657, 74HC123
MAIN -> STV8237
MICOM -> CXA2165
VSP9402, 74HC123 -> CXA2165
4/4

10-2-5 Feature Box 5

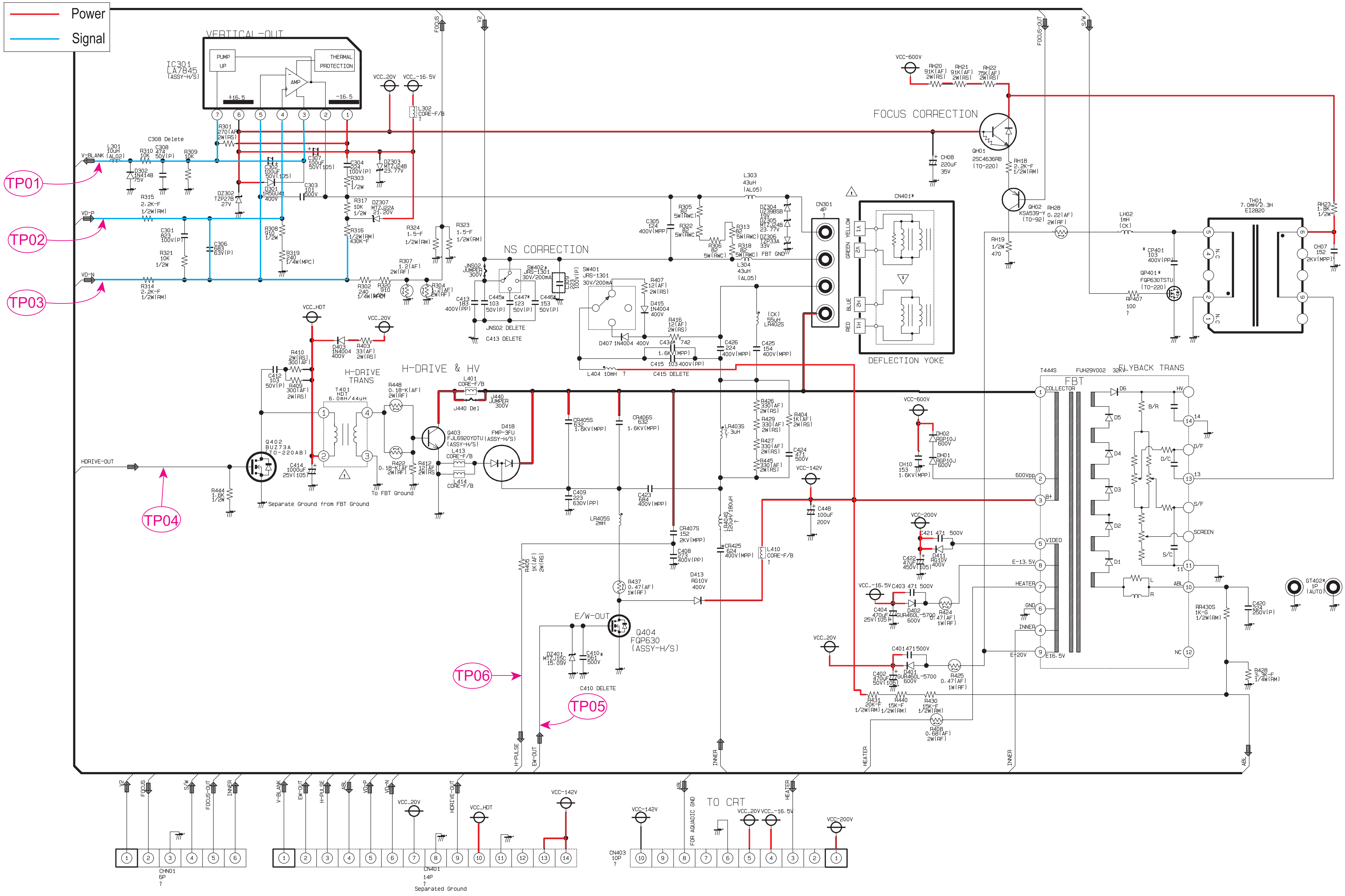
This Document can not be used without Samsung's authorization.

🟥	Power
🟦	Signal

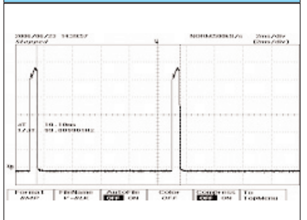

ICM07
STV8237
(TQFP)
SCART1_L_OUT
SCART1_R_OUT
SCART1_L_IN
SCART1_R_IN
SEL_L_IN
SEL_R_IN
SCART2_L_OUT
SCART2_R_OUT
S_IF
S_RESET
FAV_L_IN
FAV_R_IN
MAIN_L
MAIN_R
SDA1
SCL1
ST-3.3V
9V-B
1.8V
5V-C
ST-RES
SC1_OUT_L
SC1_OUT_R
VCC_H
GND_H
SC3_OUT_L
SC3_OUT_R
VCC33_SC
GND33_SC
SC1_IN_L
SC1_IN_R
VREFA
GND_SA
VBG
SC2_IN_L
SC2_IN_R
VCC33_LS
GND33_LS
SC2_OUT_L
SC2_OUT_R
VCC_NISO
I2S_PCM_CLK
VDD33_IO2
VSS33_IO2
VCC18_CLK2
GND18_CLK2
GND18_CLK1
VCC18_CLK1
XTALOUT_CLKXTM
XTALIN_CLKXTP
CLK_SEL
VDD18_3
VSS18_3
CK_TST_CTRL
VSS33_IO1
VDD33_IO1
S/PDIF_OUT
S/PDIF_IN
RST
VDD18_2
VSS18_2
MX01
27MHz/14pF
MIC01
78RM33D
(DPAK)
MIC02
18
(DPAK)
MD01
5.6V
RLZ5.6B
RLS4148
MD02

10-3 DEFLECTION

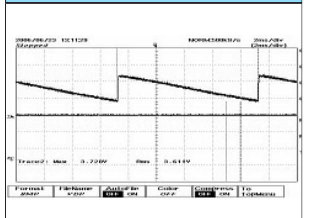
This Document can not be used without Samsung's authorization.


Power
Signal
VERTICAL-OUT
IC301
LA7845
(ASSY-H/S)
PUMP UP
THERMAL PROTECTION
AMP
V-BLANK
VD-P
VD-N
TP01
TP02
TP03
TP04
TP05
TP06
VCC_20V
VCC_-16.5V
VCC_HDT
VCC-600V
VCC-200V
VCC-142V
FOCUS CORRECTION
QH01
2SC4536RB
QH02
KSA539-Y
NS CORRECTION
H-DRIVE TRANS
T401
H-DRIVE & HV
Q402
BUZ73A
Q403
FJL6920YDTU
HDRIVE-OUT
Separate Ground from FBT Ground
To FBT Ground
E/W-OUT
Q404
FQP630
(ASSY-H/S)
C410 DELETE
C413 DELETE
C415 DELETE
JNS02 DELETE
C308 Delete
CN301
DEFLECTION YOKE
GREEN
YELLOW
BLUE
RED
FBT
FLYBACK TRANS
T444S
FUH29V002
COLLECTOR
HV
B/R
D/F
S/F
SCREEN
VIDEO
HEATER
GND
INNER
ABL
NC
B+
600Vpp
E-13.5V
E-20V
E16.5V
GT402
GT401
H-PULSE
EW-OUT
FOCUS
V2
FOCUS-OUT
S/W
INNER
HEATER
ABL
TO CRT
CNH01
6P
CN401
14P
Separated Ground
CN403
10P
FOR AQUADIC GND

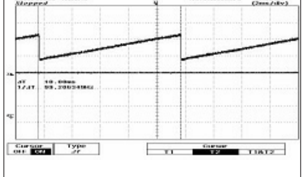
TP01



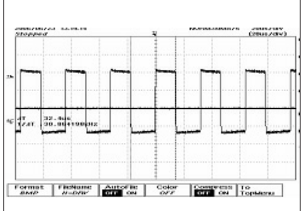
TP02



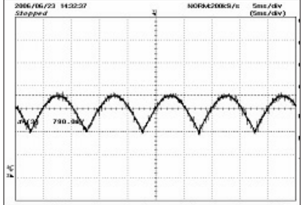
TP03



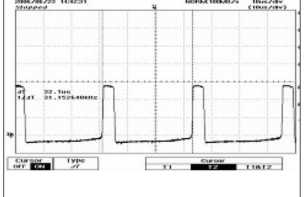
TP04



TP05

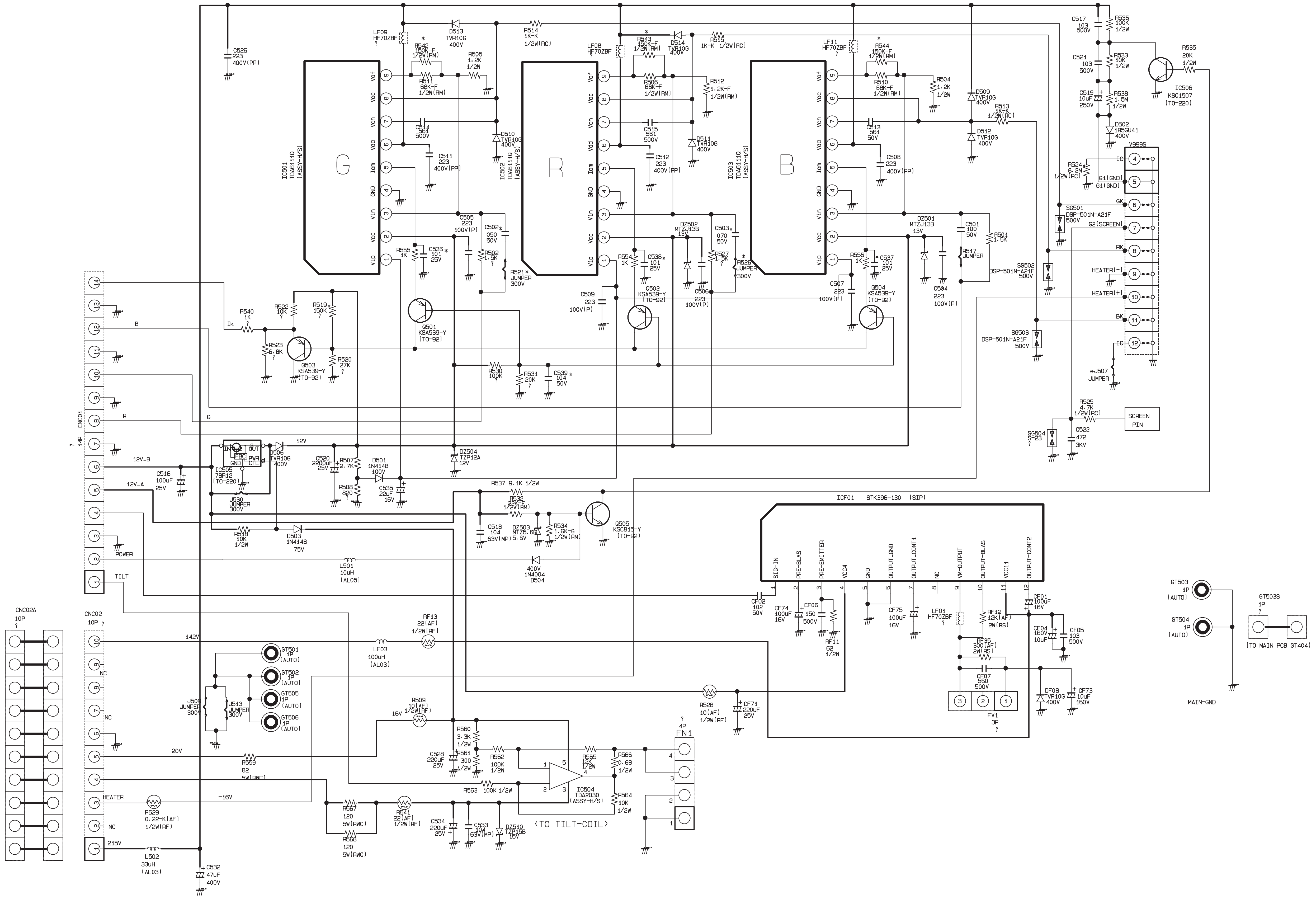


TP06



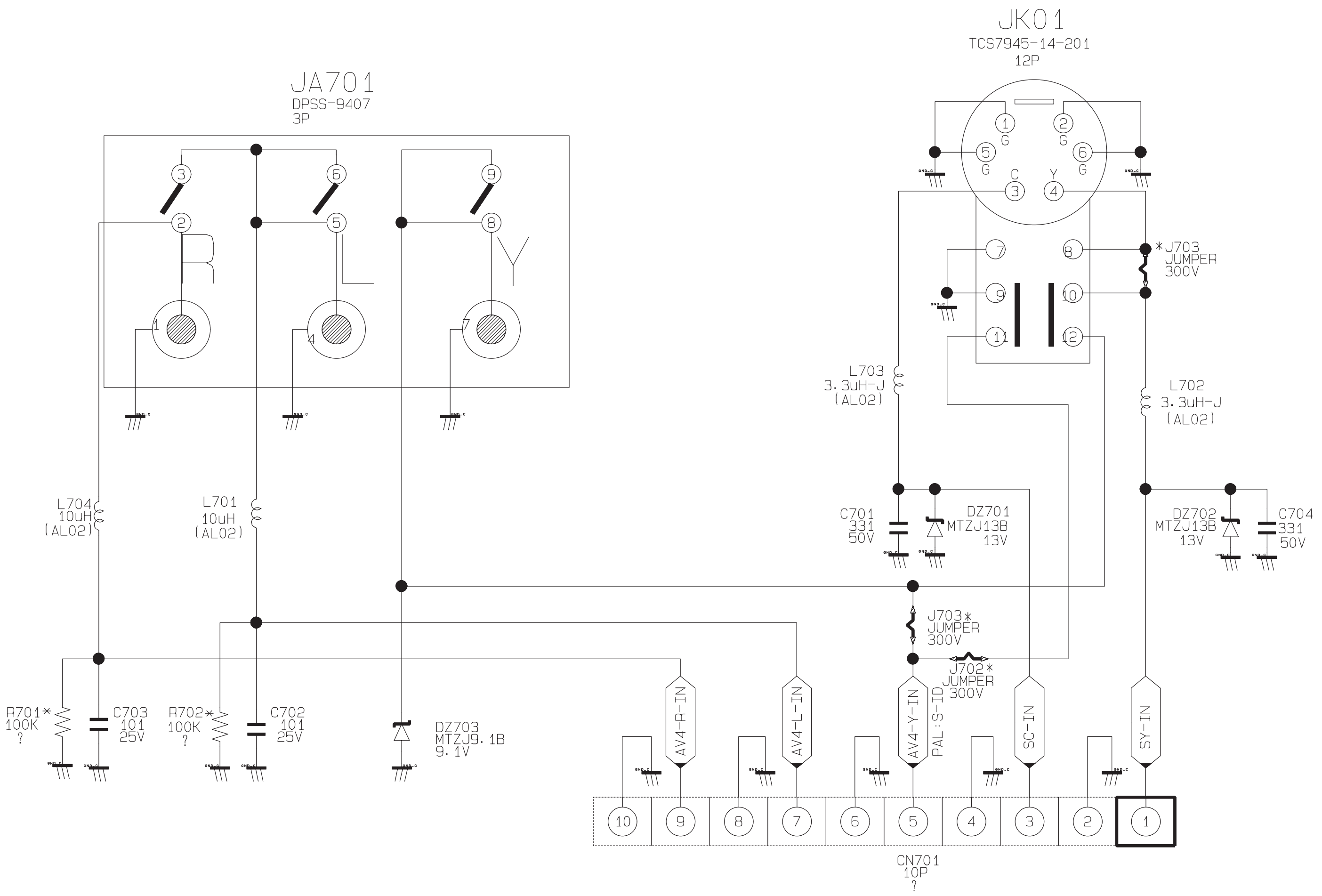
10-4 CRT

This Document can not be used without Samsung's authorization.


IC501
TDA6111Q
(ASSY-H/S)
G
IC502
TDA6111Q
(ASSY-H/S)
R
IC503
TDA6111Q
(ASSY-H/S)
B
Vof
Voc
Vcn
Vdd
Iom
GND
Vin
Vcc
Vip
C526
223
400V(PP)
LF09
HF70ZBF
D513
TVR10G
400V
R514
1K-K
1/2W(RC)
R542
150K-F
1/2W(RM)
R505
1.2K
1/2W
R511
68K-F
1/2W(RM)
C514
561
500V
D510
TVR10G
400V
C511
223
400V(PP)
LF08
HF70ZBF
R543
150K-F
1/2W(RM)
D514
TVR10G
400V
R515
1K-K 1/2W(RC)
R506
68K-F
1/2W(RM)
R512
1.2K-F
1/2W(RM)
C515
561
500V
D511
TVR10G
400V
C512
223
400V(PP)
LF11
HF70ZBF
R544
150K-F
1/2W(RM)
R510
68K-F
1/2W(RM)
R504
1.2K
1/2W
D509
TVR10G
400V
R513
1K-K
1/2W(RC)
D512
TVR10G
400V
C513
561
50V
C508
223
400V(PP)
C517
103
500V
R536
100K
1/2W
C521
103
500V
R533
10K
1/2W
C519
10uF
250V
R538
1.5M
1/2W
D502
1R5GU41
400V
R535
20K
1/2W
IC506
KSC1507
(TO-220)
V999S
IC
G1(GND)
GK
G2(SCREEN)
RK
HEATER(-)
HEATER(+)
BK
R524
8.2M
1/2W(RC)
SG501
DSP-501N-A21F
500V
SG502
DSP-501N-A21F
500V
SG503
DSP-501N-A21F
500V
J507
JUMPER
R525
4.7K
1/2W(RC)
C522
472
3KV
SG504
SCREEN
PIN
C505
223
100V(P)
C502
050
50V
R502
1.5K
R521
JUMPER
300V
R555
1K
C536
101
25V
Q501
KSA539-Y
(TO-92)
R522
10K
R519
150K
R540
1K
Ik
B
R523
6.8K
Q503
KSA539-Y
(TO-92)
R520
27K
R530
100K
R531
20K
C539
104
50V
DZ502
MTZJ13B
13V
C503
070
50V
R527
1.5K
R526
JUMPER
300V
R554
1K
C538
101
25V
C509
223
100V(P)
Q502
KSA539-Y
(TO-92)
C506
223
100V(P)
DZ501
MTZJ13B
13V
C501
100
50V
R501
1.5K
R517
JUMPER
R556
1K
C537
101
25V
C507
223
100V(P)
Q504
KSA539-Y
(TO-92)
C504
223
100V(P)
CNC01
14P
R
G
12V_B
12V_A
POWER
TILT
IN
OUT
GND
PWR CTL
IC505
78R12
(TO-220)
D506
TVR10G
400V
12V
C520
2200uF
25V
R507
2.7K
D501
1N4148
100V
R508
820
C535
22uF
16V
DZ504
TZP12A
12V
C516
100uF
25V
J530
JUMPER
300V
R518
10K
1/2W
D503
1N4148
75V
L501
10uH
(AL05)
R537 9.1K 1/2W
R532
1/2W(RM)
Q505
KSC815-Y
(TO-92)
C518
104
63V(MP)
DZ503
MTZ5.6B
5.6V
R534
1.6K-G
1/2W(RM)
D504
1N4004
400V
ICF01 STK396-130 (SIP)
SIG-IN
PRE-BIAS
PRE-EMITTER
VCC4
GND
OUTPUT_GND
OUTPUT_CONT1
NC
VM-OUTPUT
OUTPUT-BIAS
VCC11
OUTPUT-CONT2
CF02
102
50V
CF74
100uF
16V
CF06
150
500V
RF11
62
1/2W
CF75
100uF
16V
LF01
HF70ZBF
RF12
12K(AF)
2W(RS)
CF01
100uF
16V
CF04
160V
10uF
CF05
103
500V
RF35
300(AF)
2W(RS)
CF07
560
500V
FV1
3P
DF08
TVR10G
400V
CF73
10uF
160V
GT503
1P
(AUTO)
GT504
1P
(AUTO)
GT503S
1P
(TO MAIN PCB GT404)
MAIN-GND
CNC02A
10P
CNC02
10P
142V
NC
20V
HEATER
-16V
215V
RF13
22(AF)
1/2W(RF)
LF03
100uH
(AL03)
GT501
1P
(AUTO)
GT502
1P
(AUTO)
GT505
1P
(AUTO)
GT506
1P
(AUTO)
J509
JUMPER
300V
J513
JUMPER
300V
R509
10(AF)
1/2W(RF)
16V
R528
10(AF)
1/2W(RF)
CF71
220uF
25V
R560
3.3K
1/2W
R561
300
1/2W
C528
220uF
25V
R562
100K
1/2W
R563 100K 1/2W
R565
12K
1/2W
R566
0.68
1/2W
R564
10K
1/2W
IC504
TDA2030
(ASSY-H/S)
FN1
4P
R559
82
5W(RWC)
R529
0.22-K(AF)
1/2W(RF)
R567
120
5W(RWC)
R568
120
5W(RWC)
R541
22(AF)
1/2W(RF)
C534
220uF
25V
C533
104
63V(MP)
DZ510
TZP15B
15V
(TO TILT-COIL)
L502
33uH
(AL03)
C532
47uF
400V

10-5 AV

This Document can not be used without Samsung's authorization.

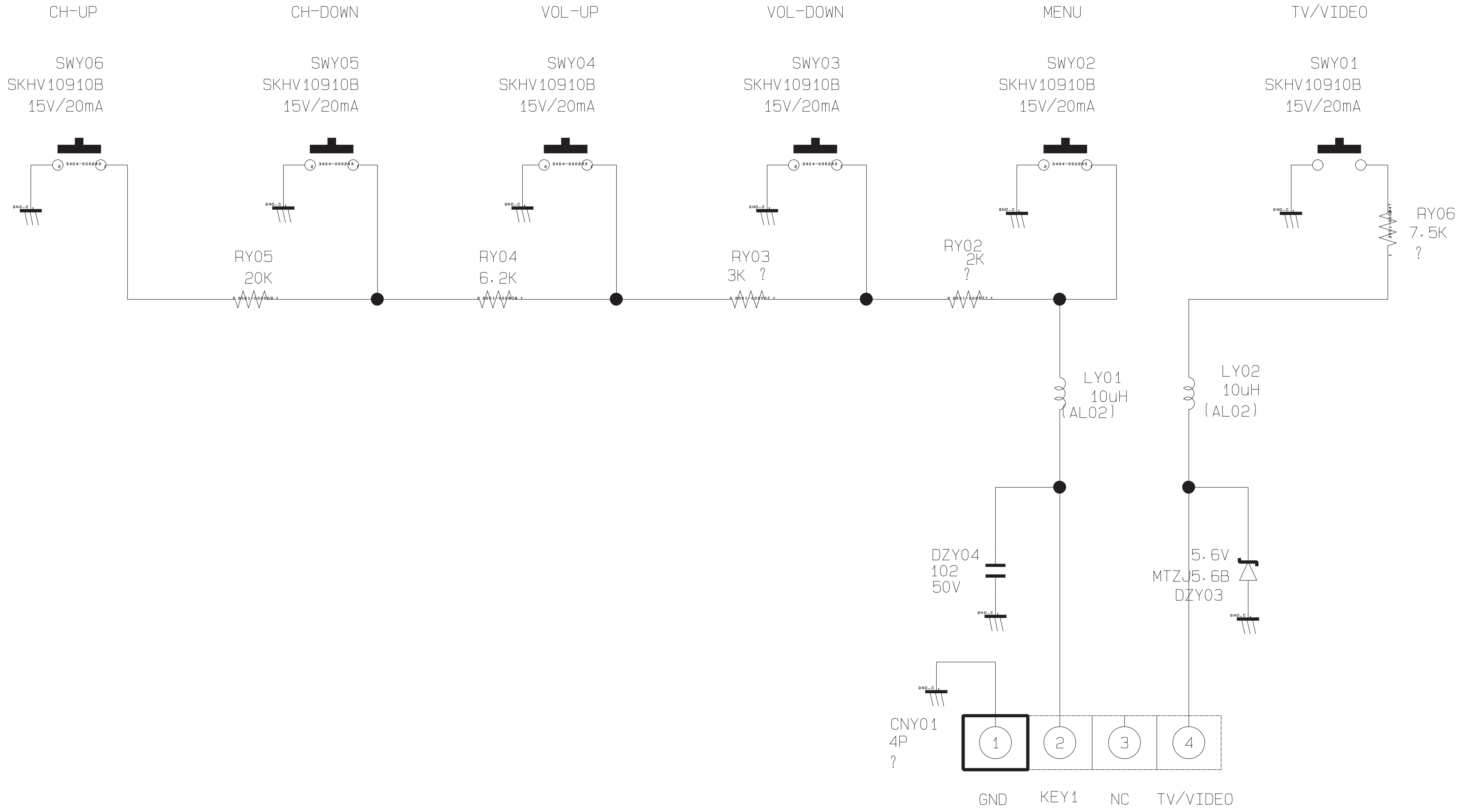

JA701
DPSS-9407
3P
R
L
Y
JK01
TCS7945-14-201
12P
G
C
Y
L703
3.3uH-J
(AL02)
L702
3.3uH-J
(AL02)
*J703
JUMPER
300V
L704
10uH
(AL02)
L701
10uH
(AL02)
C701
331
50V
DZ701
MTZJ13B
13V
DZ702
MTZJ13B
13V
C704
331
50V
J703*
JUMPER
300V
J702*
JUMPER
300V
R701*
100K
?
C703
101
25V
R702*
100K
?
C702
101
25V
DZ703
MTZJ9.1B
9.1V
AV4-R-IN
AV4-L-IN
AV4-Y-IN
PAL:S-ID
SC-IN
SY-IN
10
9
8
7
6
5
4
3
2
1
CN701
10P
?

OPTION

LOC	NT	PAL
J701	DELETE	JUMPER
J702	DELETE	JUMPER
J703	JUMPER	DELETE
R701	DELETE	1/8W 100K
R702	DELETE	1/8W 100K

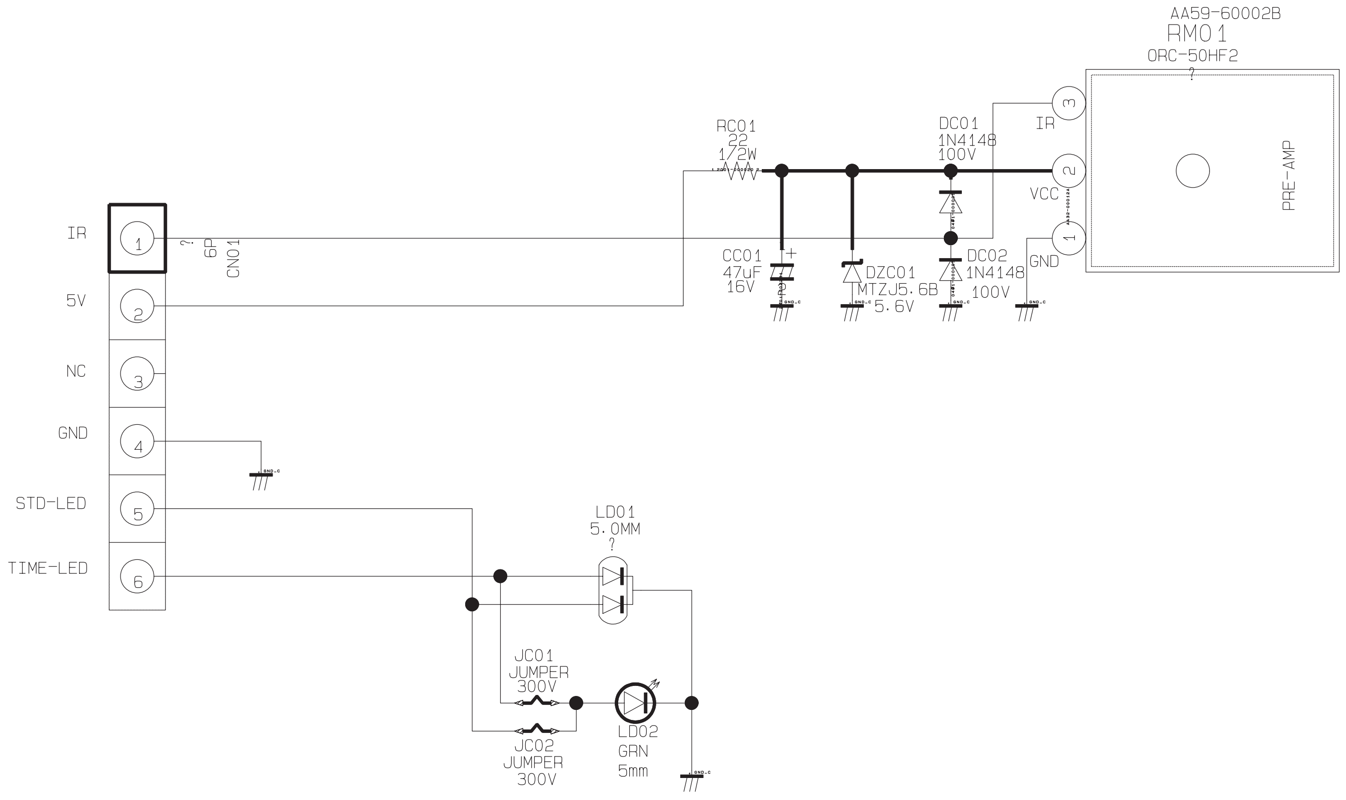
10-6 CONTROL

This Document can not be used without Samsung's authorization.


CH-UP
SWY06
SKHV10910B
15V/20mA
CH-DOWN
SWY05
SKHV10910B
15V/20mA
VOL-UP
SWY04
SKHV10910B
15V/20mA
VOL-DOWN
SWY03
SKHV10910B
15V/20mA
MENU
SWY02
SKHV10910B
15V/20mA
TV/VIDEO
SWY01
SKHV10910B
15V/20mA
RY05
20K
RY04
6.2K
RY03
3K ?
RY02
2K
?
RY06
7.5K
?
LY01
10uH
(AL02)
LY02
10uH
(AL02)
DZY04
102
50V
5.6V
MTZJ5.6B
DZY03
CNY01
4P
?
1
2
3
4
GND
KEY1
NC
TV/VIDEO

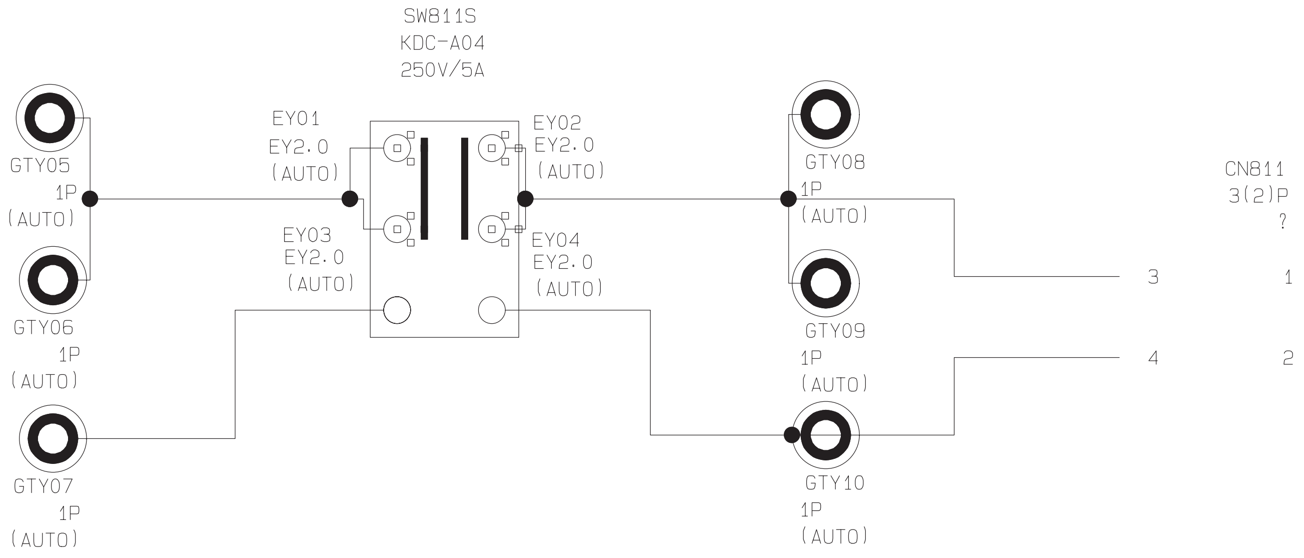
10-7 LED Module

This Document can not be used without Samsung's authorization.


AA59-60002B
RM01
ORC-50HF2
?
PRE-AMP
IR
VCC
GND
3
2
1
RC01
22
1/2W
DC01
1N4148
100V
CC01
47uF
16V
DZC01
MTZJ5.6B
5.6V
DC02
1N4148
100V
IR
5V
NC
GND
STD-LED
TIME-LED
1
2
3
4
5
6
?
6P
CN01
LD01
5.0MM
?
JC01
JUMPER
300V
JC02
JUMPER
300V
LD02
GRN
5mm

10-8 Master S/W

This Document can not be used without Samsung's authorization.

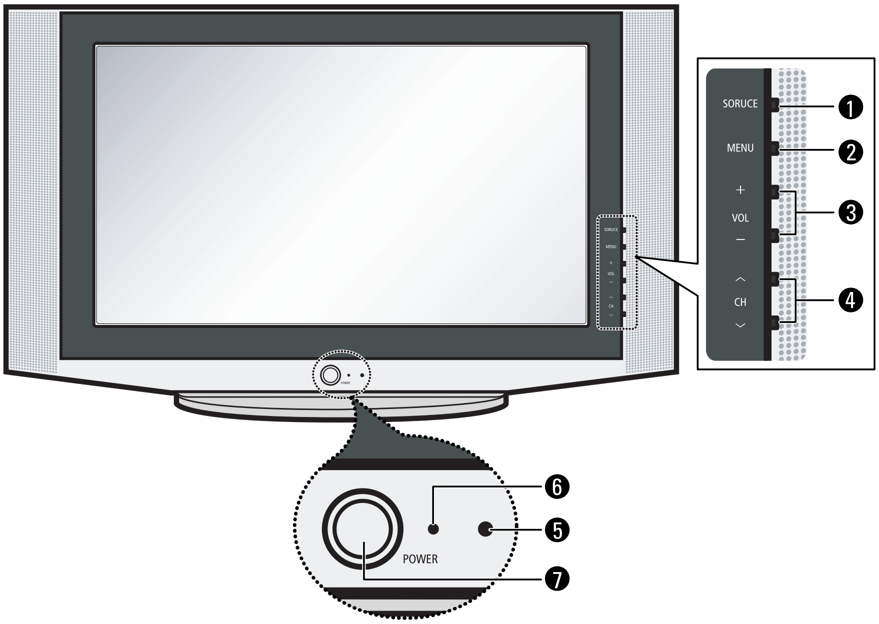

SW811S
KDC-A04
250V/5A
EY01
EY2.0
(AUTO)
EY02
EY2.0
(AUTO)
EY03
EY2.0
(AUTO)
EY04
EY2.0
(AUTO)
GTY05
1P
(AUTO)
GTY06
1P
(AUTO)
GTY07
1P
(AUTO)
GTY08
1P
(AUTO)
GTY09
1P
(AUTO)
GTY10
1P
(AUTO)
CN811
3(2)P
?
3
1
4
2

11. Operation Instruction & Installation

11-1 Product Features and Functions

11-1-1 Control Buttons

You can control your TV's basic features, including the on-screen menu.
To use the more advanced features, you must use the remote control.



① **TV/VIDEO**
Press to change between viewing TV programs and signals from other components.

② **MENU**
Press to see an on-screen menu of your TV's features.

③ **+ VOL -**
Press to increase or decrease the volume.
Also used to select items on the on-screen menu.

④ **∧ CH ∨**
Press to change channels. Also press to move between items on the on-screen menu.

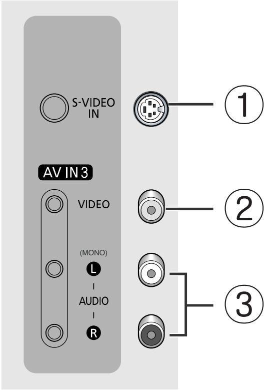
⑤ **Remote Control Sensor**
Aim the remote control towards this spot on the TV.

⑥ **Stand-By Indicator**
Lights up when you turn the power off.
- Power Off ; Red
- Power On ; Off
- Timer On ; Green

⑦ **POWER**
Press to turn the TV on and off.

11-1-2 Side Panel Jacks

You can use the side panel jacks to connect an A/V component that is used only occasionally, such as a camcorder or video game.


S-VIDEO IN
AV IN 3
VIDEO
(MONO)
L
AUDIO
R
①
②
③

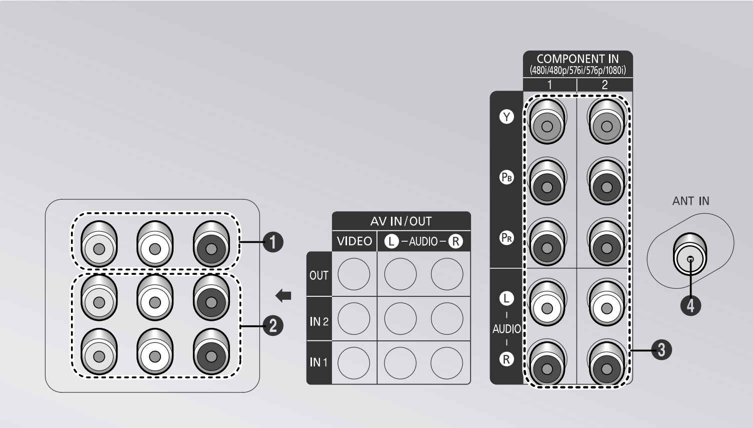
① **S-VIDEO INPUT**
Connect a S-video signal from a camcorder or video game.

② **VIDEO INPUT**
Used to connect a video signal from a camcorder or video game.

③ **AUDIO INPUT**
Connect the audio signals from a camcorder or video game.

11-1-3 Connection Jacks (Rear)

Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a DVD player. Because there are three sets of input jacks, you can connect three different A/V components (i.e., a VCR and a DVD, 2 VCRs, etc.)


COMPONENT IN
(480i/480p/576i/576p/1080i)
1
2
Y
PB
PR
L
AUDIO
R
AV IN / OUT
VIDEO
L – AUDIO – R
OUT
IN 2
IN 1
ANT IN
❶
❷
❸
❹

① **MONITOR OUT (VIDEO / L-AUDIO-R)**
Outputs for external devices.

② **AV-1 INPUT (VCR) -VIDEO/AUDIO(L/R)**
AV-2 INPUT(VCR) -VIDEO/AUDIO(L/R)
Inputs for external devices, such as VCR, DVD, video game device, or video disc players.

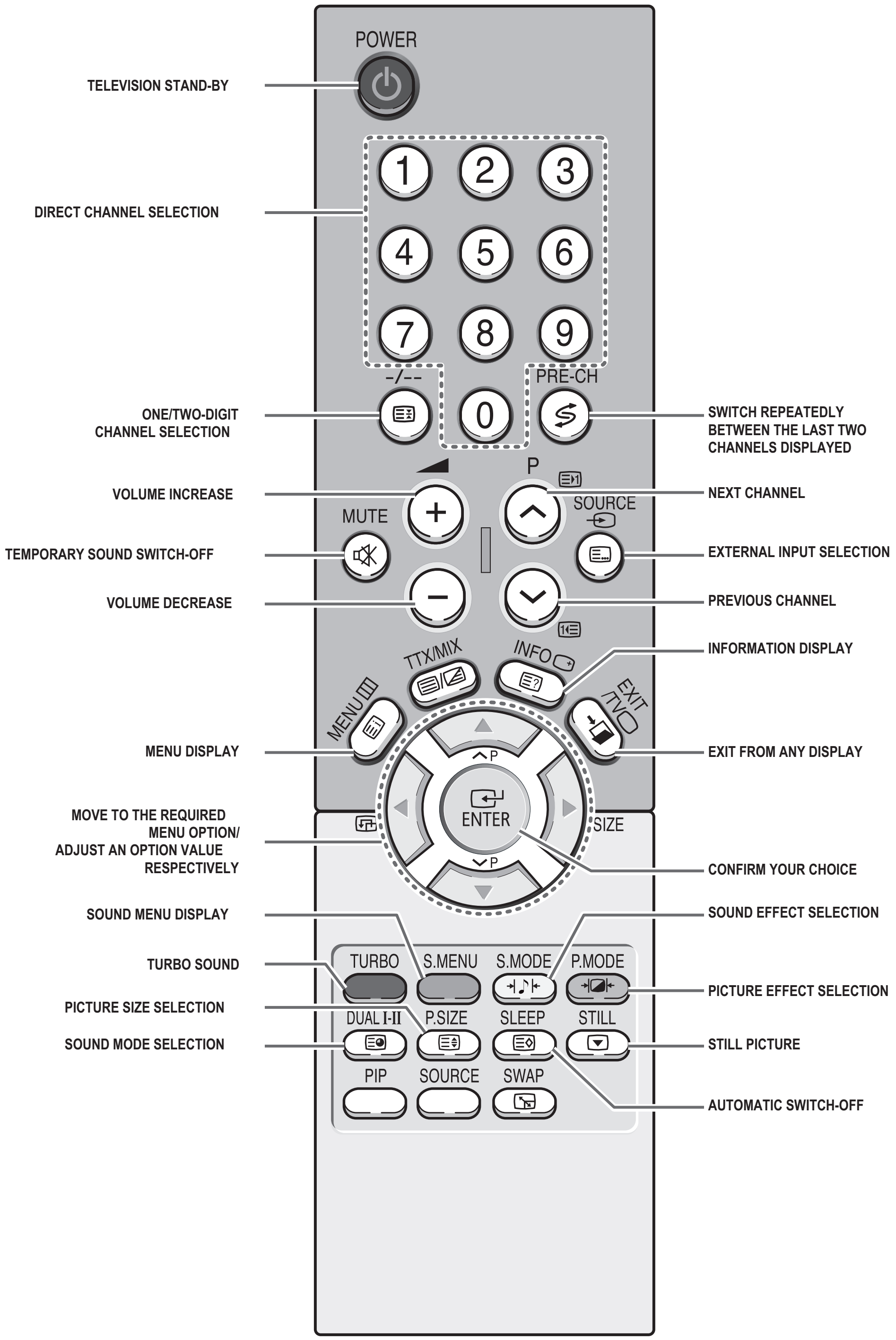
③ **COMPONENT 1 INPUT (DVD)/**
COMPONENT 2 INPUT (DVD)
VIDEO (**Y**/**P$_B$**/**P$_R$**) and AUDIO (**L**/**R**) inputs for Component.

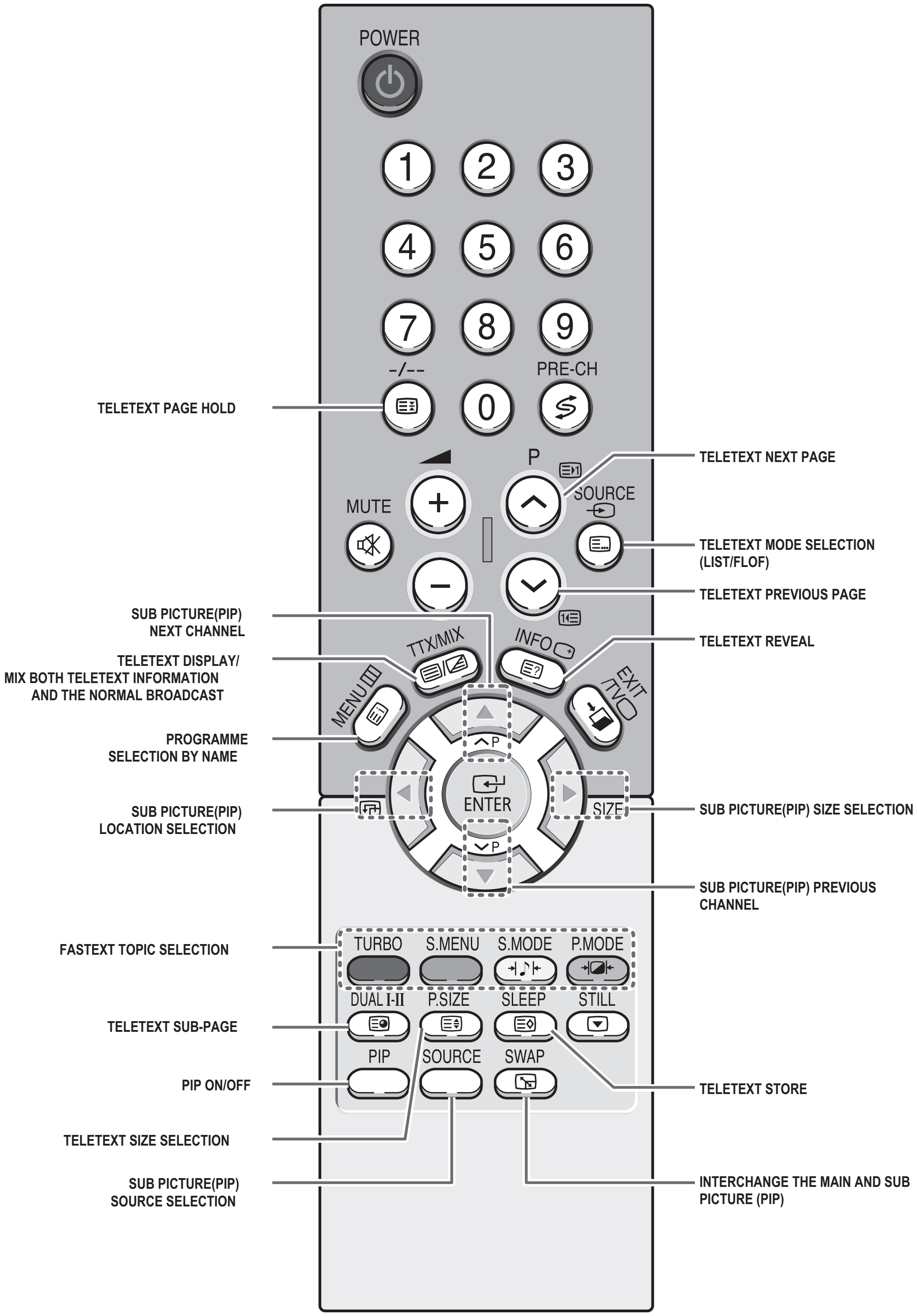
➢ Available format for Component inputs ;
480i, 480p, 576i, 576p, 1080i - 50Hz

④ **VHF/UHF (75Ω)**
75Ω Coaxial connector for Aerial/Cable Network.

11-1-4 Remote Control

You can use the remote control up to about 23 feet from the TV. When using the remote, always point it directly at the TV.
You can also use your remote control to operate your VCR, DVD, Cable box, and Samsung Set-top Boxes.

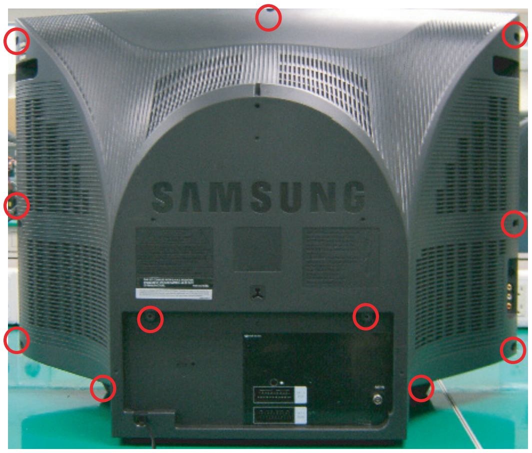
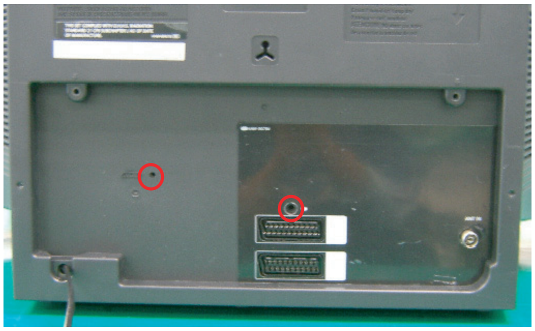

TELEVISION STAND-BY
DIRECT CHANNEL SELECTION
ONE/TWO-DIGIT CHANNEL SELECTION
SWITCH REPEATEDLY BETWEEN THE LAST TWO CHANNELS DISPLAYED
VOLUME INCREASE
NEXT CHANNEL
TEMPORARY SOUND SWITCH-OFF
EXTERNAL INPUT SELECTION
VOLUME DECREASE
PREVIOUS CHANNEL
INFORMATION DISPLAY
MENU DISPLAY
EXIT FROM ANY DISPLAY
MOVE TO THE REQUIRED MENU OPTION/ ADJUST AN OPTION VALUE RESPECTIVELY
CONFIRM YOUR CHOICE
SOUND MENU DISPLAY
SOUND EFFECT SELECTION
TURBO SOUND
PICTURE EFFECT SELECTION
PICTURE SIZE SELECTION
SOUND MODE SELECTION
STILL PICTURE
AUTOMATIC SWITCH-OFF
POWER
1
2
3
4
5
6
7
8
9
-/--
0
PRE-CH
P
MUTE
SOURCE
TTX/MIX
INFO
MENU
EXIT
TV
ENTER
SIZE
TURBO
S.MENU
S.MODE
P.MODE
DUAL I-II
P.SIZE
SLEEP
STILL
PIP
SOURCE
SWAP


POWER
1
2
3
4
5
6
7
8
9
-/--
0
PRE-CH
P
MUTE
SOURCE
TTX/MIX
INFO
MENU
EXIT
/TV
ENTER
P
SIZE
P
TURBO
S.MENU
S.MODE
P.MODE
DUAL I-II
P.SIZE
SLEEP
STILL
PIP
SOURCE
SWAP
TELETEXT PAGE HOLD
TELETEXT NEXT PAGE
TELETEXT MODE SELECTION (LIST/FLOF)
TELETEXT PREVIOUS PAGE
SUB PICTURE(PIP) NEXT CHANNEL
TELETEXT REVEAL
TELETEXT DISPLAY/ MIX BOTH TELETEXT INFORMATION AND THE NORMAL BROADCAST
PROGRAMME SELECTION BY NAME
SUB PICTURE(PIP) LOCATION SELECTION
SUB PICTURE(PIP) SIZE SELECTION
SUB PICTURE(PIP) PREVIOUS CHANNEL
FASTEXT TOPIC SELECTION
TELETEXT SUB-PAGE
TELETEXT STORE
PIP ON/OFF
TELETEXT SIZE SELECTION
SUB PICTURE(PIP) SOURCE SELECTION
INTERCHANGE THE MAIN AND SUB PICTURE (PIP)

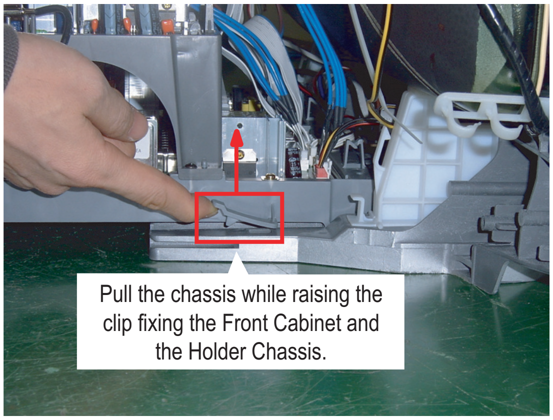
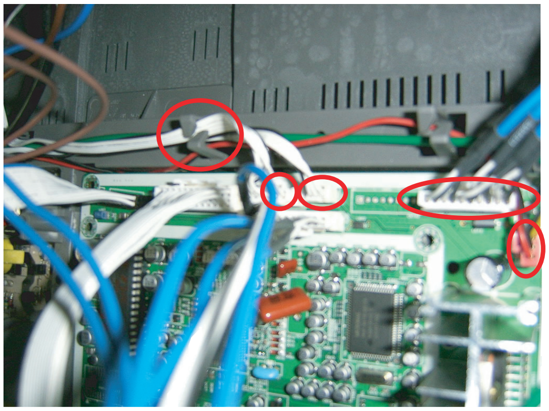
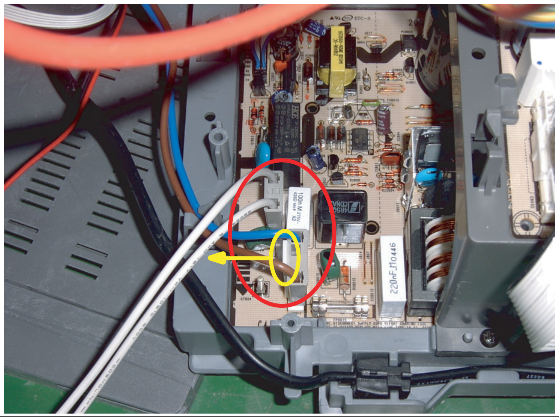
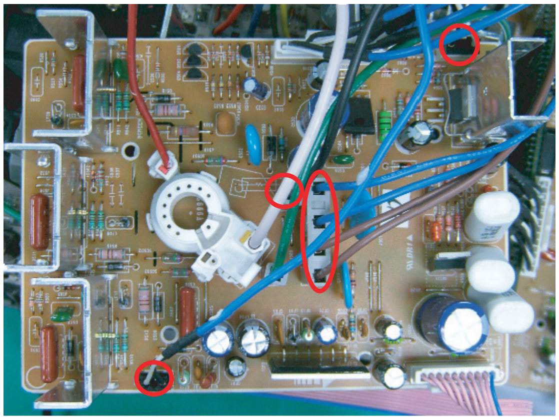
12. Disassembly & Reassembly

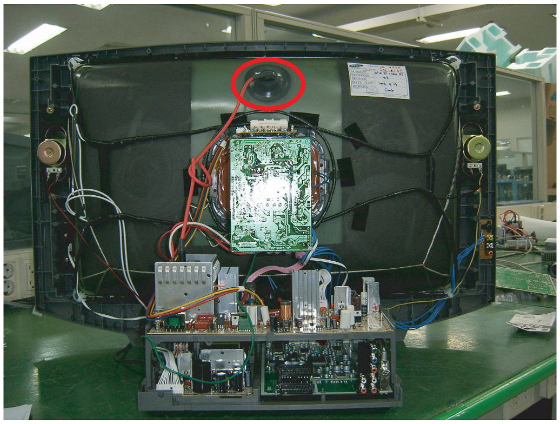
12-1 Overhaul Disassembly & Reassembly

12-1-1 Disassembling the Cabinet

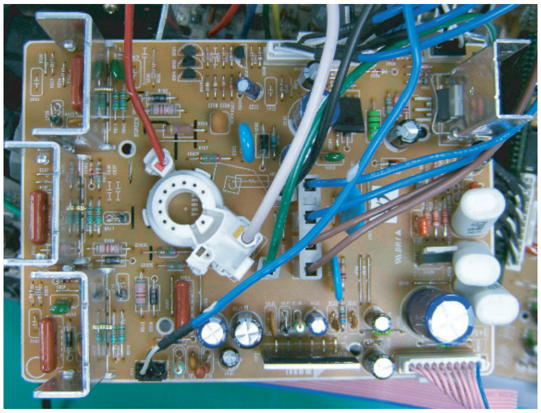
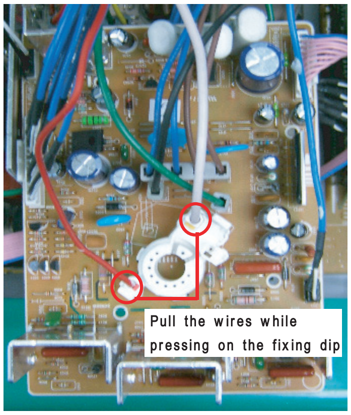
Part Name	Description	Description Photo
Back Cover	① Remove the 11 screws fixing the Back Cover. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A 6003-001026 ② Tap the upper part of the Back Cover 2 or 3 times and pull the Back Cover to separate it from the unit. ⚠Notice: Disassemble the product after disconnecting the power cord and discharge the unit to prevent an electric shock and damage to the product due to static electricity.	
Terminal Board	① Remove the 2 screws fixing the Terminal Board and the Jacks. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A 6003-001026 ② Lift the fixing holder up at ○ and pull the Terminal Board to separate it from the unit.	

12-1-2 Disassembling the CRT and Chassis

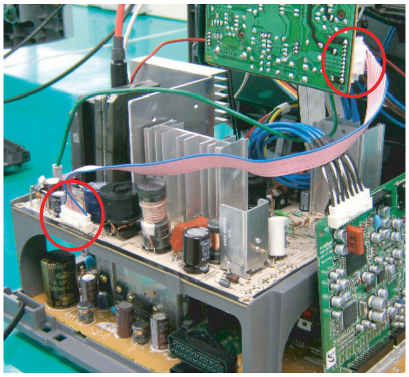
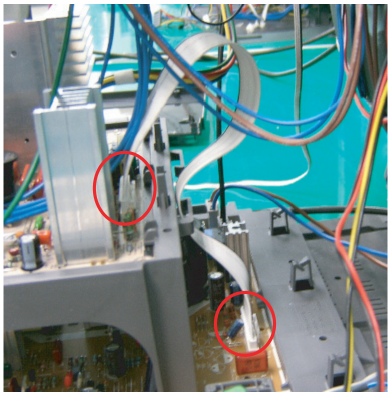
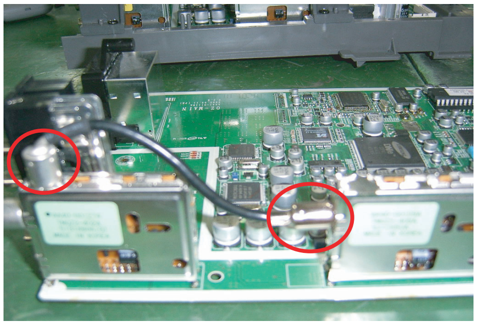
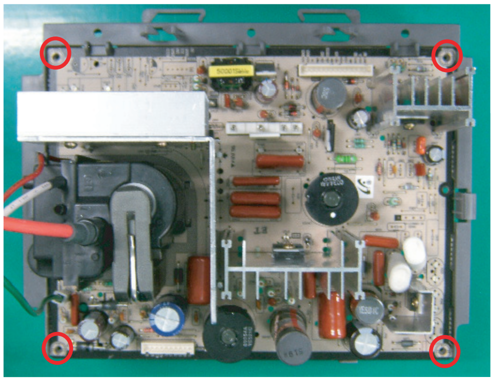
Part Name	Description	Description Photo
Chassis Holder	① Separate the Ass'y Holder chassis from the Front Cabinet. ② Pull the Chassis Holder lifting the fixing clip up. ⚠Notice: Pulling the Chassis Holder by force may damage the clip or the connector. Pull the Chassis Holder just until the clip comes off the hole.	 Pull the chassis while raising the clip fixing the Front Cabinet and the Holder Chassis.
	① Separate the Speakers, the Side AV Wire, the Side Control, and the Remote Control Sensor Cable from the Front Cabinet and the System Board. ② Separate the wire from the Wire fixing holder at ○. ⚠Notice: Since there is a clip to connect the Connector Header in the Wire Connector, pulling it by force may damage the clip or the connector. Press the clip down completely and pull the connector.	
	① Separate the D-Coil and power cable from the Front Cabinet and Power Board. ② To separate the power cord, slide the fixing clip and lift the cable up.	
	① Separate the CRT Ass'y from the CRT ② Separate the TBC wire, GND, VM and Tilt cables from the CRT Ass'y sequentially.	

Part Name	Description	Description Photo
Chassis Holder	① Separate the cables connecting the FBT and the CRT. ⚠Notice: Since there may be a remaining high-voltage current within the CRT, take care not to touch the CRT hole with metal or a part of yourself when separating the cables.	

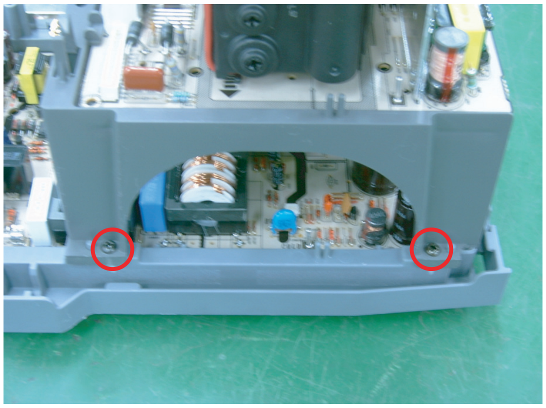
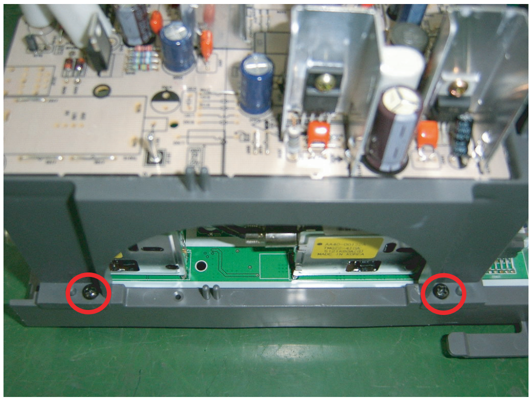
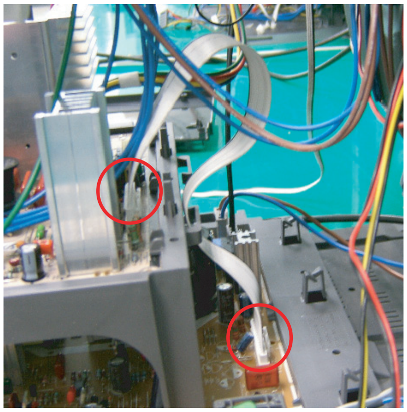
12-1-3 Disassembling the CRT Ass'y

Part Name	Description	Description Photo
CRT Ass'y	① Separate the cables from the Deflection/System Board and CRT Ass'y.	
	① Separate the wires from the FBT of the Deflection Board and the CRT Ass'y. ② To separate the thick red and white wires, pull the wires while pressing the push-type clip at the connector. ③ To separate the thin red wire, insert a pin in the small hold next to the hole and pull the wire. ⚠Notice: Take care when separating the wires because pulling the wires by force may damage the socket. In addition, separate the wires on a flat and clean surface so as to prevent scratching of the material and the PCB.	

12-1-4 Disassembling the Deflection Board

Part Name	Description	Description Photo
Deflection Board	① Separate the 10 pin cable from the CRT Assy's.	
	① Separate the 14 pin cable from the Main Board.	
	① Separate the cable from the Splitter and the Tuner. ② First separate the cable from the Splitter using a tool such as nippers. ⚠Notice: Since pulling the wire by force may damage the coating of the wire, separate the wire holding the metal part with the tool.	
	① Remove the 4 screws fixing the Deflection Ass'y. : PWH, +, B, M3, L10, ZPC(YEL), SWRCH18A 6003-001023	

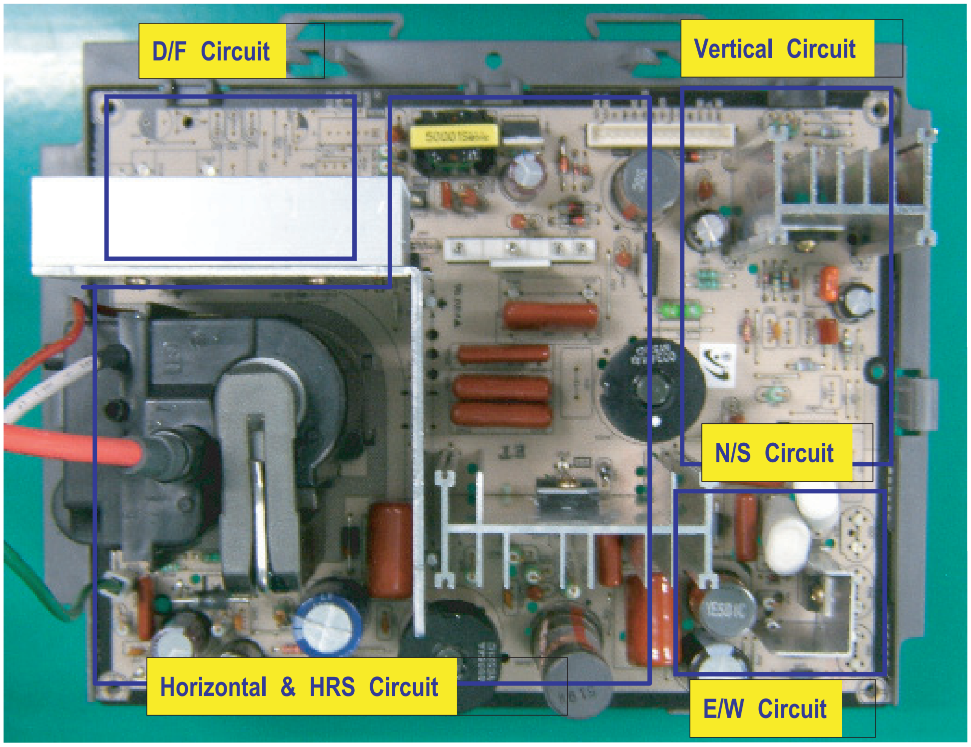
12-1-5 Disassembling the Power Board

Part Name	Description	Description Photo
Power Board	① Remove the 4 screws to separate the holder fixing the Deflection Board Holder. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A 6003-001026 ② Separate the holder.	 
	① Separate the cable from the Deflection Board	

MEMO

13. Circuit Description

13-1 Overall Block Description



※ Bias Circuit structre of S62B is the same as the existing S61A circuit

■ Circuit Constitution.

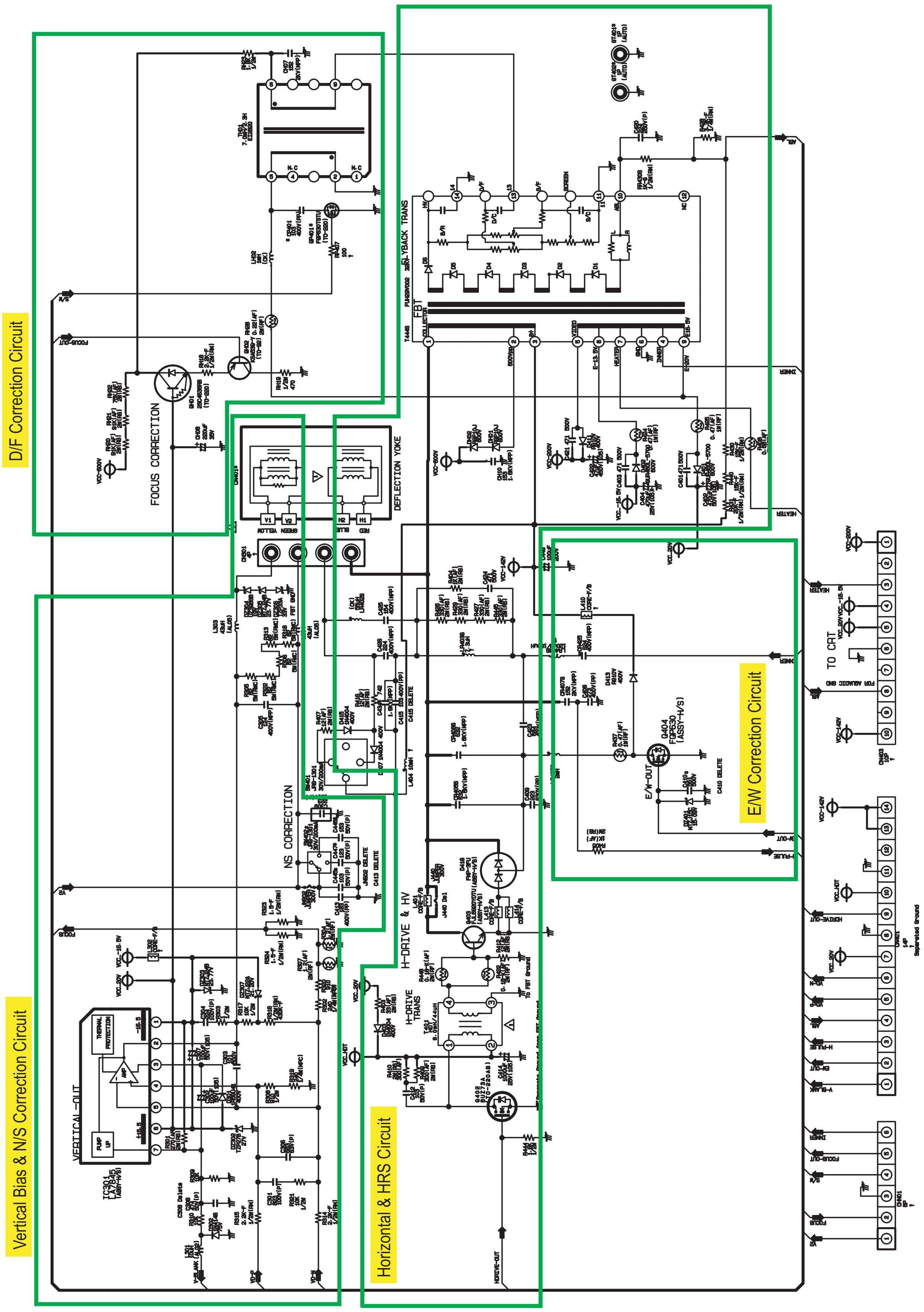
1. Horizontal Bias Part
   - Controls the high voltage generation and horizontal bias.. FBT, HDT, CT condenser etc.

2. Vertical Bias & N/S (North / South) Correction Circuit
   - While mostly controlling the vertical bias, also corrects the picture lowering of top and bottom. ..LA7845, N/S TRANS, etc.

3. HRS (Horizontal Raster Shift) Correction Circuit
   - A correction circuit of Linearity distortion on the left and right side of a picture which is caused by awry electron beam from an electron gun.. Correction S/W and surrounding circuits.

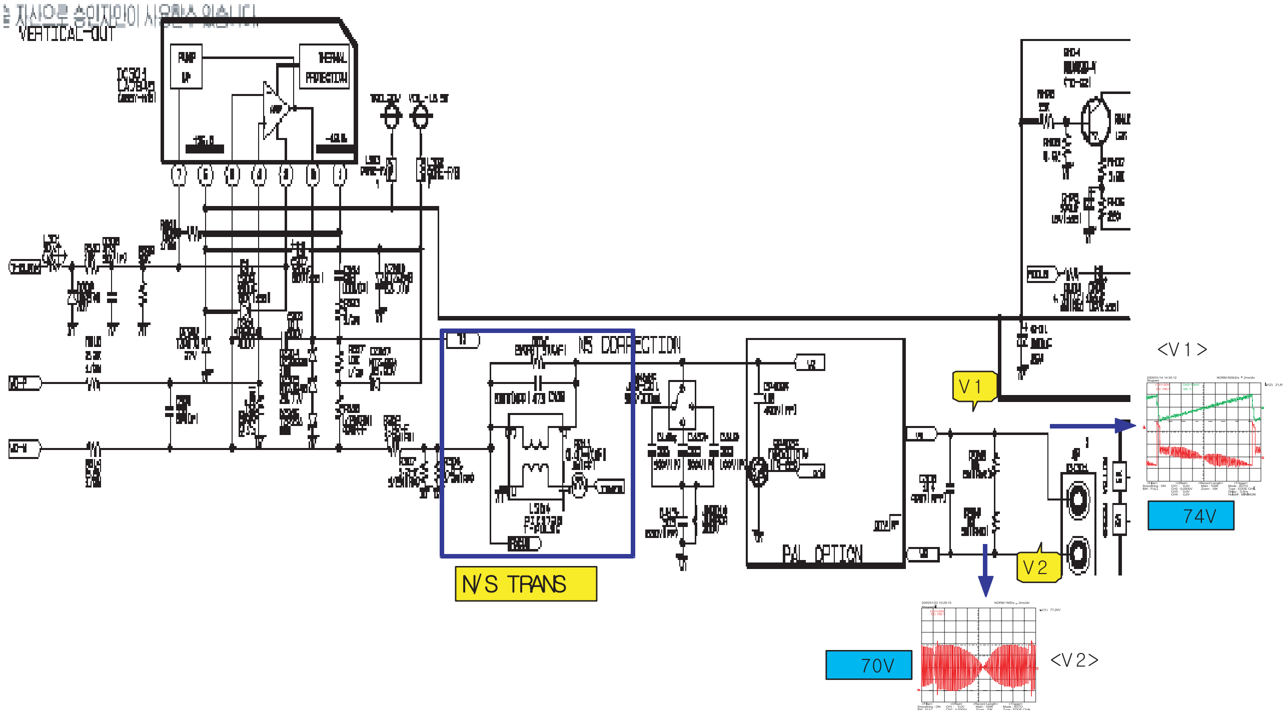
4. D/F (Dynamic Focus) Correction Circuit.
   - Improved Focus feature circuit due to the widened angle of a picture¡¦..D/F Trans, Vertical/Horizontal circuit

5. E/W (East / West) Correction Circuit.
   - A circuit for correcting the spool shape which appears on the left and right part of a picture. This is caused by the difference between the distances from the center of a picture to each corner. KA393, FQP630 etc. (Adopt PWM circuit)


D/F Correction Circuit
FOCUS CORRECTION
DEFLECTION YOKE
FLYBACK TRANS
FBT
Vertical Bias & N/S Correction Circuit
VERTICAL-OUT
IC301 LA7845
NS CORRECTION
Horizontal & HRS Circuit
H-DRIVE & HV
H-DRIVE TRANS
E/W Correction Circuit
E/W-OUT
Q404 FQP630
TO CRT
FOCUS-OUT
INNER
HEATER
H-DRIVE-OUT
V-BLANK

13-2 Partial Block Description

13-2-1 Vertical & N/S Correction Circuit



ⓐ Understanding of N/S Circuit and Operation Principle.

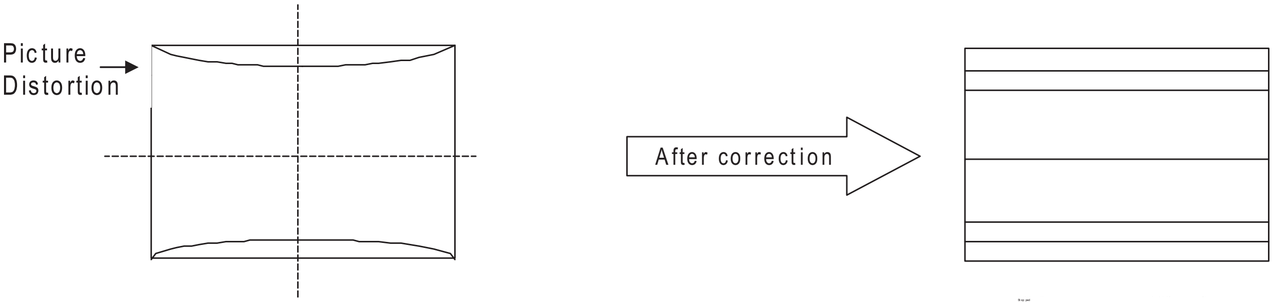
▶ What is a N/S correction circuit?

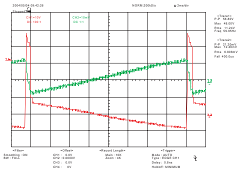
- If the bias angle of a picture widens, the distance from the center of a picture to each corner becomes farther as it moves to periphery. This causes the picture being distorted (Picture Lowering) vertically in a shape of a spool because of the strong bias at four corners which are the farthest from the center.
  Correction effect to the amount of a correction signal can be made by crossing Parabolic current of a vertical period over the vertical bias current and applying it.

▶ N/S Circuit Constitution and Operation Principle.

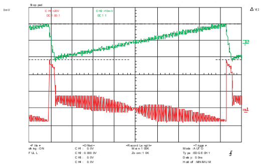
- Consists of L304, C305, C439, R312. Symmetrize the up and down amplitude using the saturable reactor of L304 and adjust N/S Gain by controlling the capacity value of C305 and C439
  If the correction vector is excessive, one can slightly reduce the resistance of R312

ⓑ Comparison before and after of N/S signal correction


Picture Distortion
After correction

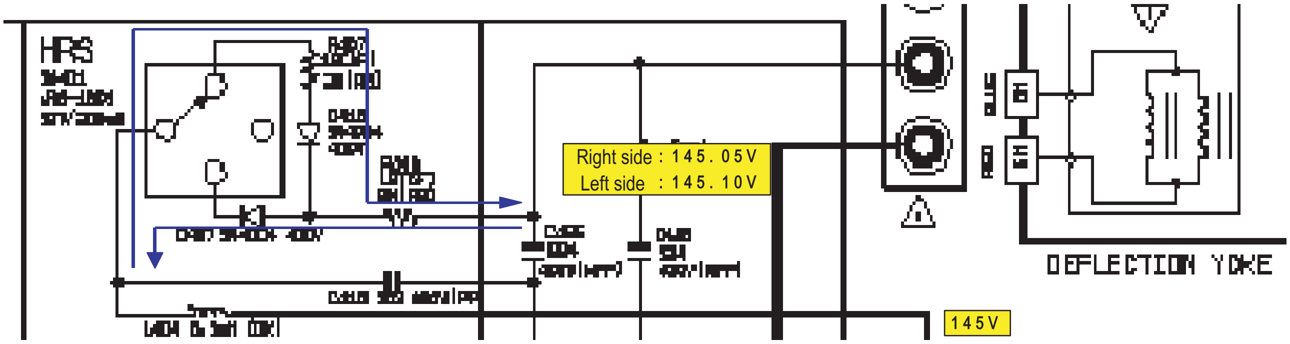


< Normal Vertical Signal >



< Vertical Wave form after correction >

13-2-2 HRS Correction



ⓐ Understanding and Constitution of HRS Correction

▶ What is HRS (Horizontal Raster Shift) circuit?

- When electron BEAM emanates from CRT, it must form the image evenly on the center of a screen. However, the left-right linearity can be awry due to the micro-distortion of horizontal angle while producing CRT. HRS is a compensatory circuit which crosses DC voltage over CS condenser on horizontal output board to correct the distortion.

ⓑ HRS Circuit Operation and Picture Movement

▶ Operational Principle.

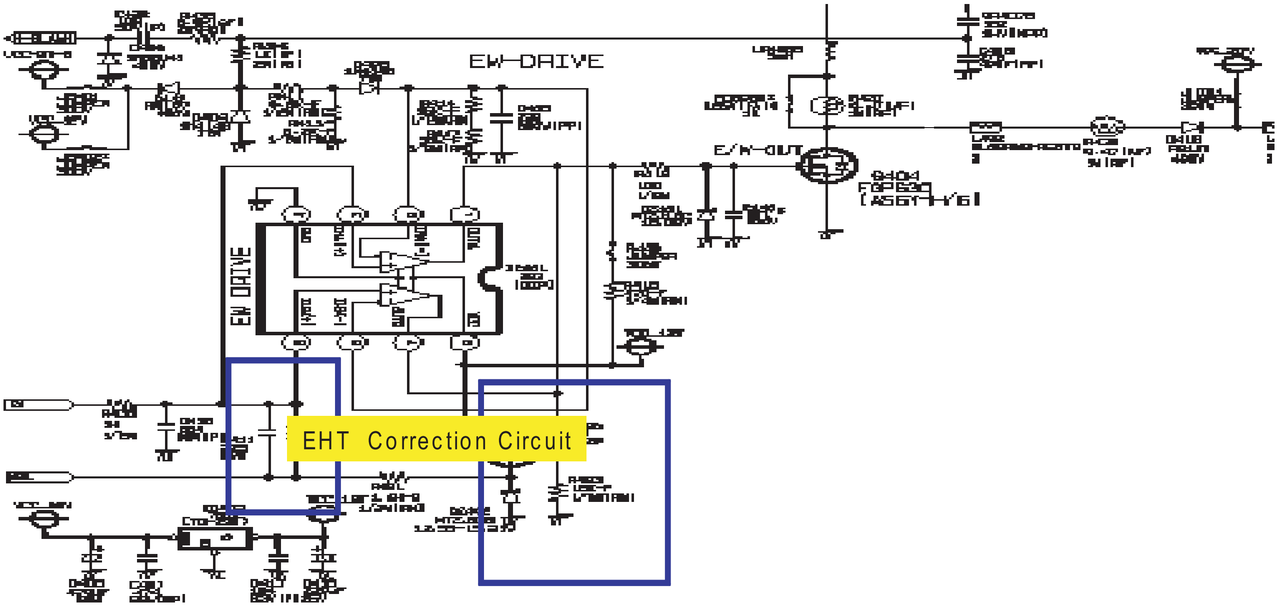
- HRS circuit consists of R407, D415, D407, SW401, C415, L404. If switch SW401 (Service S/W) to the direction of R407, it raises the C426 CS condenser voltage through D415 and the picture moves to right. If switch SW401 to the direction of D417, the picture moves to left.

C415 is functioning as a condenser which stops generating current. It can control the left-right movement since the rechargeable voltage varies as the condenser capacity value varies.
That is, the larger the C415 capacity value becomes, the bigger the left-right movement will be.

▶ Picture Movement during 0HRS Connection
* Direction of SW407 Switch .... Center : Not corrected.
.... D415 : moves to the right of a picture
.... D417 : moves to the left of a picture

Condition	Total Length of a Picture Moved (m/m)					
	Left		Center		Right	
	To Left	To Right	To Left	To Right	To Left	To Right
After	5.5	6.5	1.5	2	6.5	6

13-2-3 E/W Circuit Block



ⓐ Understanding of E/W Circuit

▶ What is an E/W (East / West) Correction Circuit?

- If the bias angle of a picture widens, the distance from the center of a picture to each corner becomes farther as it moves to periphery. This causes the picture being distorted (Picture Lowering) horizontally in a shape of a spool because of the strong bias at four corners where are the farthest from the center. E/W is a circuit which corrects the spool-shape on the left and right part by crossing Parabollic wave form over the horizontal output board and controls the current which flows through terminal no.47. Parabollic wave comes out from terminal no.47 of CXA2165 CHROMA IC(IC31)
  It also controls the horizontal-related factors of Factory data such as picture size, size change and Parabola gain change. It has an essential role of minimizing the picture swaying (High Voltage Regulation)

ⓑ E/W Circuit Constitution and Operation

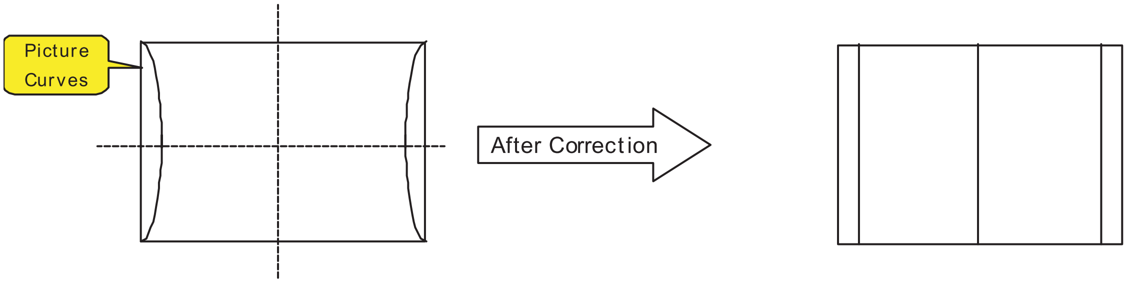
▶ E/W Circuit Constitution and Operation Principles.

- E/W circuit consists of KA393(comparator), FQP630(output TR), and other parts. This uses a method in which PWM controls the circuit using a comparator. The advantage of this PWM Control method is that POWER Loss hardly occurs and generates little heat when using low H/S.
  Input E/W signal to terminal no 3,5 of IC401(KA393) and carrier wave to terminal no 2,6. Carrier wave can be made by reducing the horizontal collector voltage and integrating the wave form using D405,R414 and C406.
  Then the carrier wave is compared with E/W signal in IC401 and outputs PWM(Pulse Width Modulation) wave form. Bias current shall be controlled using Q404.
  Picture swaying occurs as the picture brightness varies. To correct this, control the high voltage regulation using Q401(1N7000), R433 and C411 That is, Q401 is a circuit for correcting Static Regulation and used to prevent the picture size changing as the picture brightness varies.
  It detects the ABL voltage and inputs to Q401 Gate through R423 resistance. Then the ABL voltage change is sent to IC401(KA393) output and controls the DC of Q404(FQP630) Gate terminal, to keep the picture size from changing.

▶ E/W Circuit Constitution and Operation Principle.
Also, E/W circuit functions as a compensatory circuit against the picture shaking by reversely compensating the picture swaying. This is possible by inputting ABL voltage to E/W using R433 as the picture brightness varies.
There are H,V, PIN-COMP as well in Factory data and these correct the high voltage regulation. If the H-COMP capacity

value increases, correction vector increases too and this causes a strong picture swaying. On the other hand, if the H-COMP capacity value decreases, correction vector decreases causing extensive picture size change. V-COMP, likewise, controls the vertical correction vector and operates in the same mechanism as H-COMP.
PIN-COMP is a function which corrects the movement of four corners of a picture. If the capacity value is excessive, a picture curves outwards when the picture is bright. COMP capacity value, therefore, should be varied +/- 1step from the factory-adjusted condition, since a gain widely varies dependant on the SET distribution.

▶ Before and After of E/W Circuit Correction



13-3 IC Line up

■ F-Box Board

Items	Descriptions	Remarks
Analog Decoder	VSP9402	
MICOM	SDA555X	Micro Controller
Component Switch	CX2151	
Deflection Processor	CX2165, SONY	
IC COMS LOGIC	74HC123, Philips	
PIP	SDA9489	
Sound IC	ST8237	
DTV Switch	BA7657	
SRAM	K6R4008C	
EPROM	M27W201	
Regulator	78RM33D	3.3V Regulator
Regulator	18,DPAK	1.8V Regulator
Regulator	4931,TO-252	5V Regulator

■ Main Board

Items	Descriptions	Remarks
BRIDGE DIODE	GSIB660	
Didode	SLA1004L	
Trans Switching	53B135-SC	
Trans Switching-ST BY	EE2020	
STR	STR-6759(LATIN)	
STR	STR-6750(EU/CIS)	
EW Driver	KA393	
Vertical Focus	MC4558C	

■ Deflection Board

Items	Descriptions	Remarks
FET	FQP630	
Vertical DEF	LA7845	
Horizontal DEF	FJ6920,FMP3FU	

■ CRT Board

Items	Descriptions	Remarks
DRIVE IC	TDA6111Q	
IC HYBRID	STK396-130	
AMP	TDA2030	

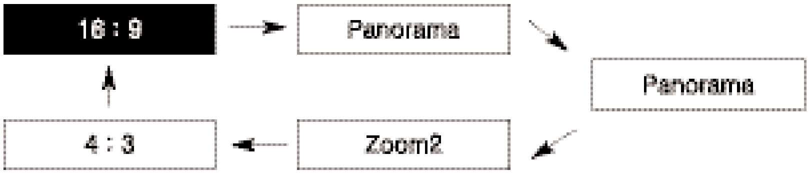
14. Reference Information

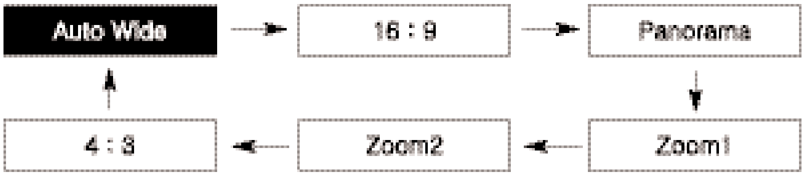
14-1 Other issues related to other products

■ SD/HD broadcasts and the TV's display capability are related

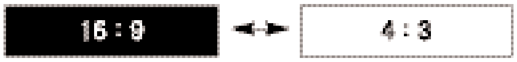
1. A digital broadcast should be transmitted in wide screen (an aspect ratio of 16:9) HD. If the broadcasting station converts a conventional program created in normal screen (aspect ratio of 4:3) into a digital signal and broadcasts the signal, the left and right of the picture will not be displayed.
   This symptom also appears in other manufacturer's TV's. The three appliance companies are trying to resolve the problem through the Ministry of Information and Communication.
   * When watching an SD (normal) broadcast through a Digital (Wide) TV (480P normal broadcast)
   * When watching an SD (normal) broadcast through a Digital Ready (Wide) TV (Using a set-top-box)
   * When watching an analog (normal) broadcast through a wide TV
     (When watching a broadcast after changing the aspect ratio of the TV from 16:9 (wide screen) to 4:3)
2. When watching a DVD title or video tape in wide screen (21:9) through a wide (16:9) TV, watching video from a computer or game console by selecting the aspect ratio to 4:3, or watching video from a DVD, VCR, computer or game console through a wide TV by selecting the aspect ratio to normal (4:3) or wide (21:9), the left and right, or top and bottom of the picture will not be displayed.
   This symptom appears in other manufacturer's TV's. The three appliance companies are trying to resolve the problem through the Ministry of Information and Communication.

■ Changing the Order of the Picture Size for 16:9 Display Devices





■ (



■ Restrictions

1. When you want to change the picture size in PIP 'ON', you must turn the PIP off before changing the size.
   However, you can change the main picture size even in PIP ON for products with no restrictions.
2. When the picture size is not Normal (4:3 for 4:3 display devices, 16:9 for 16:9 display devices) and you turn PIP on, the picture size is changed to Normal.
   However, you can turn PIP on without changing the picture size for products with no restrictions.
3. In the OSD notation for the picture size, 16:9 is represented as "Wide" instead of "16:9" for devices other than with 16:9 displays.
   Ex: For LCD 15:9 devices, "Wide" is displayed on the OSD instead of "16:9".
4. The picture size can be changed even in the blue screen.
   However, the picture size should be controlled by the product specifications if the change is impossible due to hardware restrictions.

14-2 Technical Terms

Digital Broadcast
Digital Broadcast is a television broadcasting signal digitized and transmitted according to the United States' terrestrial digital broadcast standard, or ATSC.

Mono
A type of audio interface that transmits audio signals through a single channel.
Through a mono interface, it is hard to experience stereophonic sound and sound is played only by one speaker.

Reception Sensitivity Amplification
A signal amplification technique that amplifies weak broadcasting signals by applying satellite technology to provide a better visual quality even for users in regions where only weak broadcasting signals are available.

Stereo
A type of audio interface that transmits audio signals through 2 channels.
Stereo transmits audio signals for the right and left channels so that you can experience stereophonic sound, and the sound is played with 2 speakers.

Analog Broadcast
Analog Broadcast is a television broadcasting signal transmitted according to the NTSC standard.

ANTENNA IN Port
A port to connect the TV aerial using a coaxial cable. It is generally used to watch public broadcast programs.

English Caption
A function that shows English caption or text information included in the broadcasting signal or video tape. You can use this function to study English by watching AFKN or CC marked video tapes.

Video/Audio Ports
You may experience poor visual and audio quality when watching a video tape on channel 3 or 4 through the antenna cable. You can experience better visual and audio quality connecting the TV and VCR through the Video/Audio ports. The video port is distinguished by the color yellow, and the audio ports are distinguished by the white (left) and red colors (right).

External Input
External Input is connecting video devices such as a VCR, camcorder, DTV receiver, DVD, etc. as a video source.

Satellite Broadcast
Satellite Broadcast transmits programs via satellite so that the broadcast is viable in all areas at a high visual and sound quality. It provides approximately 100 channels including public broadcast channels. To view satellite broadcast, you have to install an additional receiver.

Wired Broadcast
Satellite Broadcast refers to movie, entertainment and educational programs transmitted by the broadcasting station in a hotel or school.

Audio Multimix
Audio Multimix provides 2 languages for audio when broadcasting a foreign movie, drama, news, etc. You can select and listen to one of the supported languages or you can select and listen to both languages simultaneously.

Component Port (Green, Blue, Red)
The Component Port separately transmits the luminance signal and provides the best quality of all video connection types.

Cable Broadcast
Cable Broadcast transmits programs via cable instead of radio wave. To view a cable broadcast, you need to subscribe to your local cable broadcast service provider and install an additional receiver.

Tuner
A device that enables selecting a specific frequency for a channel on a TV or radio.

Anynet
Anynet is an AV network system that enables the easy-to-use AV interface for users by controlling connected AV devices through the Anynet menu when AV devices of Samsung Electronics are connected.

DVD (Digital Versatile Disc)
DVD is a large capacity media that can save multimedia content such as video, game, audio applications, etc. using MPEG-2 video compression technology on a CD-sized disc.

S-VIDEO IN Port
This is called super video. S-Video is a type of video signal which has the video luminance and color signals separated in order to provide a better visual quality.

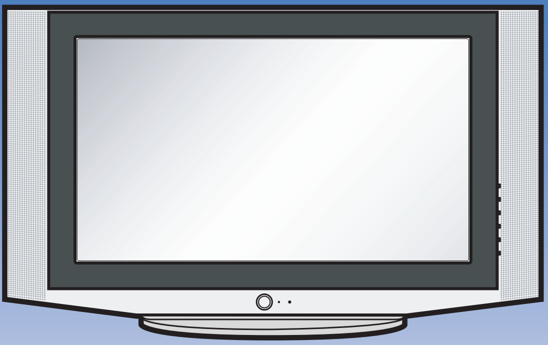
VHF/UHF
VHF refers to TV channels 2 to 13, and UHF refers to TV channels 14 to 69.

COLOR TELEVISION RECEIVER

Chassis : S62B(P)_SHINE
Model : WS32Z306VBXXEU

SERVICE Manual

COLOR TELEVISION RECEIVER



WS-32Z306V

FEATURES

- Slimfit(Low Depth) CRT
- SRS-WOW
- Simple 100Hz